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      and a Xho I restriction site.
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120

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gcccctaact ccgcccatt ccgccccatt ggctgactaa tttttttat
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1080

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                                                                      480
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<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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<213> Homo sapiens
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<222> (755)..(755)
<223> n equals a,t,g, or c
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<223> n equals a,t,q, or c
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                                                                   \alpha
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<212> DNA

## <213> Homo sapiens

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<223> n equals a,t,g, or c

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1860

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<223> n equals a,t,q, or c
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<222> (16)..(16)
<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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<221> misc feature
<222> (531)..(531)
<223> n equals a,t,g, or c
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<211> 1752
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<212> DNA
<213> Homo sapiens
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<211> 2409
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<222> (694)..(694)
<223> n equals a,t,q, or c
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<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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<221> misc feature
<222> (21)..(21)
<223> n equals a,t,g, or c
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2220
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900

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<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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tcaacagaac tggattttac cgccacagtg gctgtgaacg tcgaagcaac ctcagcctgg
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cnttaaangg ggggaaaaaa aa
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<211> 615
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (18)..(18)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (20)..(20)
<223> n equals a,t,g, or c
<220>
<221> misc feature
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<222> (584)..(584)
<223> n equals a,t,q, or c
<400> 309
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tatggactct aaagctagat ttcagaggtttgaagtagct ctgctactta ctggctgtgt
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ctcacgccct ggtta
<210> 310
<211> 711
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (345)..(345)
<223> n equals a,t,g, or c
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<210> 311
<211> 553
<212> DNA
<213> Homo sapiens
<400> 311
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<211> 1614
<212> DNA
<213> Homo sapiens
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                                                                      600
                                                                      660
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<212> DNA
<213> Homo sapiens
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<223> n equals a,t,g, or c
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<221> misc feature
<222> (55)..(55)
<223> n equals a,t,g, or c
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<221> misc_feature
<222> (63)..(64)
<223> n equals a,t,g, or c
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<221> misc_feature
<222> (174)..(174)
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<223> n equals a,t,g, or c
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<212> DNA
<213> Homo sapiens
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1191
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<220>
<221> misc feature
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<222> (525)..(525)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (542)..(542)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (562)..(562)
<223> n equals a,t,g, or c
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<222> (607)..(607)
<223> n equals a,t,g, or c
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ccagagaaca gggctcccca ttacaatctt ttcgagatct tttcccttgc taaccggatc
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## <213> Homo sapiens

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<221> misc feature
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<220>
<221> misc feature
<222> (629)..(630)
<223> n equals a,t,g, or c
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gaactggagc taaggctaag tggtctgtct gtttaataag agtttgaatc agatggcctg
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                                                                      240
gcatgaagag tcactggcct gagagaatgt caggggcatt tgtaaatgtg taaagggctg
                                                                      300
aaaaatcctg agggattatt attattgcta ttgttgttat tattcacaga cacatycaac
                                                                      360
agccattgtc tgcctcctta tctgtcatgc tttctgcacg agcgtcagcc tgagcttcaa
                                                                      420
tetgtgtgta tatetgeage ttacgteett geacceetce agaacceagt tteateettg
                                                                     480
taggtttttc craagcagga tttgcacaag tggcgtgttt tttaagtat ttattttgca
                                                                      540
ggccatttac tcggcatggc tatttttaca gtgggtaagg agcanggcta aaaataactt
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ageteataac cagacaggtt etgeatttga cattacgngg natteatttg cateceattt
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<210> 327

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<211> 1321
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<213> Homo sapiens
<400> 327
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atatggagge aaatgggage caaggeacet egggeagegeeaaegaetee eageaegaee
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ccggtaaaat gtttatcggt ggactgagct ggcagacctc accagatagc cttagagact
                                                                    240
                                                                    300
attttagcaa atttggagaa attagagaat gtatggtcat gagagatccc actacgaaac
gctccagagg cttcggtttc gtcacgttcg cagacccagc aagtgtagat aaagtattag
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qtcaqccca ccatqaqtta qattccaaqa cgattqaccc caaaqttqca tttcctcqtc
                                                                    420
gagcgcaacc caagatggtc acaagaacaa agaaaatatt tgtaggcggg ttatctgcga
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acacagtagt ggaagatgta aagcaatatt tcgagyagtt tkgcaaggtg gaagatgcaa
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tgctgatgtt tgataaaact accaacaggc acagaggtt tggctttgtc acttttgaga
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atgaagatgt tgtggagaaa gtctgtgaga ttcatttcca tgaaatcaat aataaaatgg
                                                                    660
tagaatgtaa gaaagctcag ccgaaagaag tcatgttccc acctgggaca agaggccggg
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cccggggact gccttacacc atggacgcgt tcatgcttgg catggggatg ctgggtgagt
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gggtcaccta ccagtggggc aaactgcttc acctttctaa gcctcagttt ccttgtctgt
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tggcttatag gatatgttag actattttct ctcttttcca tctccttcct caaaagaagg
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aaaagtcccc ctctatctgc ctcagccctc tcatctgagt gggagttytt aagatgtaag
                                                                   1140
gactcctggc tgacttgact tgtgtgggct aaggctacgt tttctaaaac ttgggagagg 1200
agggaagtgg taagggtggg cgataatcct gtctatttaa atgattaaca tttttctctt
                                                                   1260
                                                                   1320
gggatatcaa aatttgcatt taaatggatg ttttaaatag cctgttttac tctttatttg
                                                                   1321
C
<210> 328
<211> 729
<212> DNA
<213> Homo sapiens
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<222> (725)..(725)
<223> n equals a,t,g, or c
<400> 328
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tactaaaagc accttcatga gctgtgaaaa atttaatgca tttatttaca tatttagtt
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taaattttag tatattgtta gttgaggtat agtttccaaa caaagagccg tgaaatgttt
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agtaactgtc tctgtacctc tggatgagga cagctcagcc gggaatggag ggggactggg
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tgaggagacc agaatgtcag tgtggccacg cagcacactt ttgttttgtc ttctgtcctt
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                                                                   360
gagcactggc ttgttcctgg æaaactagg cataataata cctatcctgc tgtgtgggtg
                                                                    420
gaagttaaat gtgataatga tgtgtgtgag atgcctgcac agtgcctgga ggtattgaag
aattattgct gcctwttctt tttctaccta ccacttaccc gctacccccg ggtgctacat
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gttagaaaac actgtgtaaa gtgtggatgc ttctgaaaaa tctccctgcc agagttagt
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gccaatagcg tgcagaaaat aagatgcaat gatttggctt cttttctgtt tggcaataag
                                                                    600
aagettattt gemeatagee tgatttettt caatetgeaa aaaaaaaaaa aaaaaaaaaa
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720
rgggnggcc
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<210> 329
<211> 1084
<212> DNA
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## <213> Homo sapiens

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                                                                   120
acaagtacat cccccggagg gcagtgcttt atgtacctgg aaatgatgaa aagaaaataa
                                                                    180
agaagattcc atccctgaat gtagattgtg cagtgctcga ctgtgaggat ggagtggctg
                                                                    240
caaacaaaaa gaatgaagct cgactgagaa ttgtaaaaac tcttgaagac attgatctgg
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gccctactga aaaatgtgtg agagtcaact cagtttccag tggtctggcg gaagaagacc
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tagagaccct tttgcaatcc cgggtccttc cttccagcct gatgctacca aaggtggaaa
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gtcctgaaga aatccagtgg gcagtgtgtg aagaaaccct gaaggtcggg cctcaagtag
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gtctctttct agatgcagtc cgtttttgga ggaraagact ttcgagcac ataggtgcam
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caagtartaa agaaaccctg gatawtctct acgcccggca aaagattgtt gtcatagcga
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aagcetttgg tetecaagee gtaratetgg kgkacattga etttegagat ggaretkgge
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tgcttagaca gtcacgagaa ggagccgcca tgggcttcac tggtaagcag gtgattcacc
                                                                    720
ctaaccaaat tgccgtggtc caggagcagt tttctccttc ccctgaaaaa attaagtggg
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ctgaagaact gattgctgcc tttaaagaac atcaacaatt aggaaagggg gcctttactt
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tccaagggag tatgatcgac atgccattac tgaagcaggc ccagaacact gttacgcttg
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                                                                   960
                                                                   1020
gaagctgcag agggatcaac ttgtgcttgc cagaggacgc caatgaagtt tgaaacacca
acaatcagag attttgtttc tgttcctcat taaatcatga gcttttgtgc cgagaaaaaa
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aaaa
                                                                   1084
<210> 330
<211> 1776
<212> DNA
<213> Homo sapiens
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<221> misc feature
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gaagcacctt ggtccccttc ctctctccca ctcaccatcc aaccaatcac cagagcctgt
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acattetata titteaacat egatteaatt gietaettet tietageetg eesteteiga
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ctgggactcc ttgagccagc ctgatcaccc caatccatcc ctcacactgt gcccatcttt
                                                                    360
ctgaagtagg aatctgatca caccamcctg ctaaaaacac tctggttctc cccacggcat
                                                                    420
gtggtgccct tgtatagctg gcaaagcctt gcatggcacg gccccagcct gtgcttcaac
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tcaattgccc gactctctcc agctctgctgagccacctaa gtcacagatg gtttctcctc
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teatetetge tetetteeat gtgeeattte tgtggettgg aatgttette ceteattete
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tttctggccc tttcccgtca caccttagac qtqcatcttc ctctcqaaaa cctctaqtqa
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gagcatcgat totocatoto agcaggooto tgtgtgcotg otgactccga otagaccaga
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                                                                    900
gtgcattacc tattcatcct cttctctcc ttaacctgaa ccagtgatct tactgtctcc
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                                                                   1200
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agacagggtc ttgctctgtc gcccaggcta gagtgtggtg gtgcgatctt agctcactga
                                                                   1260
aacctccacc teccaggtte aagtgaytet setgeeteag cetecegagt agetgggaet
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1380

acaggcacgt gccaccatæ ccggctaatt tgtggatttt tagtacagac ggsgtttcgt

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cattgtctgg atggaccaca gtttatttct ccattcacct actgaaggac atctcggttg
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tggacctatt atcaactaat tcgggtaaat ctcaaggagt gcaattgctg gatccacagt
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<210> 331
<211> 784
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (1)..(1)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (6)..(6)
<223> n equals a,t,g, \propto c
<220>
<221> misc_feature
<222> (32)..(32)
<223> n equals a,t,g, or c
<400> 331
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gtgttgtcag tgttttgcat tttggccatt ctagtaggtg tttacatggt atctagtcat
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tggtgtgctg cacccaytaa ctcgtcatyt agcattaggt atattccya atgctattgg
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ttctttccat ctcagagtcc ccagaaacta acatagcagt tggtacagag ttggtgctca
                                                                       480
acaaacatca gcttaggaac tatgtcctat gtttttttgt ttttttttt ttttaaaaag
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gaatgtgage tgtteecaaa aegtatgtee tteeceeatg eetetaeeet geeetteeae
                                                                      600
aaactttctg atcttcagca cacactaccc aaccatcaag gctgagactt cccgtggcca
                                                                      660
gcagtgtctc atgctggctt caagccccac agcactgctt ttttcaactt ctcttgtggt
                                                                      720
ttagactgtc tttagcccag caagagaatt cgatatcaagcttatcgata ccgtcgacct
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cgag
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<210> 332
<211> 699
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (12)..(12)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (30)..(30)
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<223> n equals a,t,g, or c
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<221> misc feature
<222> (46)..(46)
<223> n equals a,t,g, or c
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<221> misc_feature
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<211> 3546
<212> DNA
<213> Homo sapiens
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<211> 774
<212> DNA
<213> Homo sapiens
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<223> n equals a,t,g, or c
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<221> misc feature
<222> (715)..(715)
<223> n equals a,t,g, or c
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cactgtgatt tcaagcatgt tttcttttc tcctttatat gactttctct gagttgggca
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tcttgaccca gctgaacatg tcttcctgag tcagtgcctg aatctttatt ttttaaattg
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taaagtcctt ttaaggagaa aatctaaaat gaaaagtgga taaacaqaac atttataagt
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<223> n equals a,t,q, or c
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<223> n equals a,t,q, or c
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<211> 751
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<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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## <213> Homo sapiens

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cattgcataa atgctatagt gtaaaaaaat ttaaacaagt gttaacttta aacagttcgc
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<223> n equals a,t,g, or c
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                                                                       600
                                                                       660
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<223> n equals a,t,g, or c
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<223> n equals a,t,q, or c
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                                                                      120
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                                                                      240
cgaatgtcgc aagtccggtc cctggtcatt gggctgcaga acctcctggt gcagaaggac
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cctctattgt cccaggcctg tgttggctgc ctggaggcct tgcttgacta cctggatgcc
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cggagcccag acattgctct ccacgtggcc tcccagcctt ggaatcggtt tttgctgttt
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ctgtttatgc ggtaccggag tagcagtgtc ctctctcatg aagaggtggg tgatgttctg
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ctgcaggcct ccttggaggg ccttccccct agcacctcct caggccagcc acccctgcag
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ggacttgaag gcccagaagt ggagagagaa tgagacctgg agacaaaggg cataattgtt
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gaataaggaa ataaaatgat acactcacaa aaaaa
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<211> 871
<212> DNA
<213> Homo sapiens
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cagtacttct ggaagagatc tacacgcaca agaatctctt tactgagagg ctgaataaga
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                                                                      420
                                                                     480
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                                                                      240
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ataagatate tgatgggetg aaggagaagg gageeecace cyteteeatg aatgeettee
                                                                      420
eggetecate tectaettge acceeagaae ecettggete tgtetgeete eceageaeet
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cagtttetet acetteteae etecetggea geetgeaatg agteetgtge caggaacegg
                                                                      540
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                                                                      881
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<212> DNA
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240
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gtgctggaca cggcttctgc catctgcaac tacaatgccc actacaagaa tcaccccaaa
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tactggtgcc gaggctattt ccgtgactac tgcaacatca tcgccttctc ccctaacagc
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                                                                      420
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                                                                      720
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<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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                                                                      120
atcattccag ttgaaagttt gcttccttcc agtcatgtgg ctcttcattc tactctctt
                                                                      180
ggctctcatt tcagatgcca tggtcatgga tgaaaaggtc aagagaagtt tgtgctggac
                                                                    240
                                                                      300
acggettetg ceatetgeaa etacaatgee caytacaaga ateaceecaa atactggtge
cgaggytatt tccgtgayta ctgcaacatc atcgccttct cccctaacag caccaatcat
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gtggccctga aggacacagg gaaccagctc attgtcacta tgtcctgcct gaacaaanaa
                                                                      420
gacacgggct ggtactggtg tggcatccar cgggactttg cmagggatga catggatttt
                                                                     480
acagagotga ttgtaactga cgacaaagga accotggoca atgacttttg gtotgggaaa
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gacctatcag gcaacaaaac cagaagctgc aaggctccca aagttgtccg caagctgacc
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                                                                     660
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                                                                      960
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1134
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<212> DNA
<213> Homo sapiens
<220>
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<222> (1067)..(1067)
<223> n equals a,t,g, or c
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<221> misc_feature
<222> (1069)..(1069)
<223> n equals a,t,g, or c
<220>
<221> misc feature
\langle 222 \rangle (157\overline{7})...(1577)
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                                                                     180
gaaggetttg tagaaatgtg teacetatgt acacetgeta ettacaeatt teetettttg
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gaaaaatgag atacttagaa taacargaaa attaagacat actggcctgg tgccagcaga
                                                                     æ
tggcttttct atagacaaac taggttagtg tggaagatat aggttaaaat aaactatgct
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gttttattta tcttcccaac ctgattggca gctagacttt tttagggtct catttaatgg
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ccctgttttt ttcattatta tatttaatga tagggcagga tttcgtatgc aagctcttgt
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                                                                    1020
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                                                                    1080
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atagcacata ttgagatata gttgtactcc ctagtagata ggaactgac ccaacaataa
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<211> 530
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<213> Homo sapiens
<220>
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<223> n equals a,t,g, or c
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gtgacatcta tagcaccctt ctgggcctgc ccgctgacat ccaggctgcc caggccatga
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gcacagtett etgecaggaa teeegageea aagacagagt qqcqqtaqea qqtqqaqtet
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<211> 1046
<212> DNA
<213> Homo sapiens
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<222> (14)..(14)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (33)..(33)
<223> n equals a,t,g, or c
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<222> (441)..(441)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (460)..(460)
<223> n equals a,t,g, or c
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                                                                      180
                                                                      240
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                                                                      300
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                                                                      360
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ccctccaaag aaactgattg gccctggaac ctccatccca ctcttgttat gactccacag
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1020
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<210> 389
<211> 819
<212> DNA
<213> Homo sapiens
<220>
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<223> n equals a,t,q, or c
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<221> misc_feature
<222> (819)..(819)
<223> n equals a,t,g, or c
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                                                                   420
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cagtittica acgctiatce eccaecetet agtaatetge agwgwetatt attgycatet
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<212> DNA
<213> Homo sapiens
<220>
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<222> (1)..(2)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (12)..(12)
<223> n equals a,t,g, or c
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agaagggaac actaattttc ttycctgatt tacttcattg ttttcttctg ttagattaac
                                                                   180
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gtgtgtgtgt gtgtgtgt gtgtgtgtat ttgaagagga catgtgcctc cataaaagga
                                                                   300
aataaaatga gagaatacat tattgatttt gtgaaatcaa aatatttgaa ttatggtttc
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tcaatattca aaaactcttg cagtttctgt acttatttct tctgatgcat agagtttcgg
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<223> n equals a,t,q, or c
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<223> n equals a,t,g, or c
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\langle 223 \rangle n equals a,t,g, or c
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<223> n equals a,t,g, or c
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<221> misc_feature
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<223> n equals a,t,g, or c
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Pro Ala Cys Leu Asn Pro Val Leu Tyr Val Phe Phe Asn Pro Lys Phe
Lys Glu Asp Trp Lys Leu Leu Lys Arg Arg Val Thr Lys Lys Ser Gly
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Ser Val Ser Val Ser Ile Ser Ser Gln Gly Gy Cys Leu Glu Gln Asp
Phe Tyr Tyr Asp Cys Gly Met Tyr Ser His Leu Gln Gly Asn Leu Thr
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Val Cys Asp Cys Cys Glu Ser Phe Leu Leu Thr 1/2s Pro Val Ser Cys
Lys His Leu Ile Lys Ser His Ser Cys Pro Ala Leu Ala Val Ala Ser
Cys Gln Arg Pro Glu Gly Tyr Trp Ser Asp Cys Gly Thr Gln Ser Ala
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His Ser Asp Tyr Ala Asp Glu Glu Asp Ser Phe Val Ser Asp Ser Ser
                165
Asp Gln Val Gln Ala Cys Gly Arg Ala Cys Phe Tyr Gln Ser Arg Ey
                                185
Phe Pro Leu Val Arg Tyr Ala Tyr Asn Leu Pro Arg Val Lys Asp
                            200
```

1540

<222> (13)
<223> Xaa equals any of the naturally occurring bamino acids

Met Ala Gly Pro Arg Ala Ser Thr Gly Pro Arg Pro Xaa Cys Leu Val 1 5 10 15

Leu Phe Leu Phe Asn Phe Ile Phe Cys Phe Met Ser Val Cys Pro Pro 20 25 30

Thr Pro Thr Pro Phe Ser Val Lys Trp Gly Ala Leu Gly Glu Ser Leu 35 40 45

Leu Pro Pro Ser Leu Ser Gln Asp Leu Pro Pro Arg Hs Gln Pro Ser 50 60

Leu Trp Thr Arg Gln Arg Ala Asp Arg Val Gly Arg Gly Leu Arg Val 65 70 75 80

Ala Arg Ala Ser Pro Pro Ala As<br/>n Gly Pro Leu Leu Arg Pro P $\sigma$  Val<br/> 85 90 95

Ser Pro Cys Pro Phe Leu Lys Gln Asn Ala Leu Val Cys Lys Pro Leu 100 105 110

Asp Ala

<210> 407 <211> 49 <212> PRT

<213> Homo sapiens

<400> 407

Met Arg Leu Cys Ser Phe Thr Lys Val Pro Met Asn Leu Phe Leu Asn 1 5 10 15

Val Ile Leu Lys Phe Tyr Asn Phe Leu Phe Ser Leu Ile Leu Gly 20 25 30

Lys Ser Cys Leu Ala Ser Leu Gly Leu Cys Lys Asn Asn Lys Cys Leu 35 40 45

Ser

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<210> 408
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<211> 218

<212> PRT

<213> Homo sapiens

<400> 408

Met Gly Ser Ala Ala Leu Glu Ile Leu GlyLeu Val Leu Cys Leu Val 1 5 10 15

Gly Trp Gly Gly Leu Ile Leu Ala Cys Gly Leu Pro Met Trp Gln Val 20 25 30

Thr Ala Phe Leu Asp His Asn Ile Val Thr AlaGln Thr Thr Trp Lys  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Gly Leu Trp Met Ser Cys Val Val Gln Ser Thr Gly His Met Gln Cys
50 60

Lys Val Tyr Asp Ser Val Leu Ala Leu Ser Thr Glu Val Gln Ala Ala 65 70 75 80

Arg Ala Leu Thr Val Ser Ala Val Leu Leu Ala Phe Val Ala Leu Phe 85 90 95

Ala Lys Ala Arg Val Ala Leu Thr Gly Gly Val Leu Tyr Leu Phe Cys 115 120 125

Gly Leu Leu Ala Leu Val Pro Leu Cys Trp Phe Ala Asn Ile Val Val 130 135 140

Gly Ala Ala Leu Tyr Ile Gly Trp Ala Ala Thr Ala Leu Leu Met Val 165 170 175

Gly Gly Cys Leu Leu Cys Cys Gly Ala Trp Val Cys Thr Gly Arg Pro 180 185 190

Asp Leu Ser Phe Pro Val Lys Tyr Ser Ala Pro Arg Arg Pro Thr Ala 195 200 205

Thr Gly Asp Tyr Asp Lys Lys Asn Tyr Val 210 215

<210> 409

<211> 62

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

```
<222> (16)
<223> Xaa equals any of the naturally occurring Famino acids
<220>
<221> SITE
<222> (54)
<223> Xaa equals any of the naturally occurring Bamino acids
<400> 409
Met Val Thr Gly Phe Phe Phe Ile Leu Met Thr Val Leu Trp Phe Xaa
Arg Glu Pro Gly Phe Val Pro Gly Trp Asp Ser Phe Phe Glu Lys Lys
                                 25
Gly Tyr Arg Thr Asp Ala Thr Val Ser Val Phe Leu Gly Phe Leu Leu
Phe Leu Ile Pro Ala Xaa Gu Ala Leu Leu Trp Glu Lys Glu
                         55
<210> 410
<211> 122
<212> PRT
<213> Homo sapiens
<400> 410
Met Cys Tyr Leu Leu Leu Leu Ile Gln Thr Ala Glu Leu Leu Ile
His Pro Gln Gly Leu Gln Ala Val Ser Asn Gly Glu Ser Ala Leu Lys
Gly Thr Arg Pro Thr Phe Ser Ser Pro Phe Ile Leu Val Thr Glu Gly
                            40
Arg Lys Glu Trp Glu Gly Val Phe Leu Ser Ser Gly Trp Lys Gly Asn
Thr Leu Ser Asn Tyr Tyr Ile Ser Leu Val Phe Tyr Tyr Ser Arg Ile
Leu Gln Pro Tyr Phe Tyr Cys Leu Trp Gly Lys Leu Glu Met Val Thr
Leu Ile Arg Ser Val Trp Arg Gly Ile Asn Gly Gly Asp Lys Ile Gln
                                105
                                                    110
Leu Val Leu Glu Asn Val Lys Val Leu Lys
```

120

<210> 411 <211> 91

115

<212> PRT

<213> Homo sapiens

<400> 411

Met Arg Leu Cys Val Thr Gly Pro Pro Val Phe Phe Phe Leu Asn
1 5 10 15

Phe Phe Phe Leu Cys Val Gly Ala Cys Leu Gly Asp Leu Lys Ile 20 25 30

Ser Arg Leu Val Tyr Leu Cys Lys Ala Cys Leu Arg Leu Glu Tyr Leu 35 40 45

Gly Lys Glu Ser Asp Ser Met Leu Ser Glu Phe Leu Lys Gly Gln Lys 50 55 60

Lys Asn Trp Arg Leu Leu Lys Cys Arg Phe Glu Val Ile Phe Leu Lys 65 70 75 80

Tyr Tyr Phe Gly Phe Cys Asp Ile Val Lys Asn 85 90

<210> 412

<211> 50

<212> PRT

<213> Homo sapiens

<400> 412

Met Leu Thr Tyr Leu Pro Arg Trp Cys Phe Leu Ser Leu Pro Pro 1 5 10 15

Cys Cys Gly Ala Ala Ser Cys Thr Met Met His Ile Gln Ile Ile Leu 20 25 30

Asn Thr His Ile Leu Ile Glu Arg Phe Leu Gly Phe Leu Leu Asn Gln 35 40 45

Val Tyr 50

<210> 413

<211> 446

<212> PRT

<213> Homo sapiens

<400> 413

Met Leu Leu Gly Leu Leu Met Ala Ala Cys Phe Thr Phe Cys Leu Ser  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

His Gln Asn Leu Lys Glu Phe Ala Leu Thr Asn Pro Glu Lys Ser Ser 20 25 30

Thr Lys Glu Thr Glu Arg Lys Glu Thr Lys Ala Glu Glu Leu Asp

- 35 40 45
- Ala Glu Val Leu Glu Val Phe His Pro Thr His Glu Trp Gln Ala Leu 50 55 60
- Gln Pro Gly Gln Ala Val Pro Ala Gly Ser His Val Arg Leu Asn Leu 65 70 75 80
- Gln Thr Gly Glu Arg Glu Ala Lys Leu Gln Tyr Glu Asp Lys Phe Arg 85 90 95
- Asn Asn Leu Lys Gly Lys Arg Leu Asp Ile Asn Thr Asn Thr Tyr Thr 100 105 110
- Ser Gln Asp Leu Lys Ser Ala Leu Ala Lys PheLys Glu Gly Ala Glu 115 120 125
- Met Glu Ser Ser Lys Glu Asp Lys Ala Arg Gln Ala Glu Val Lys Arg 130 135 140
- Leu Phe Arg Pro Ile Glu Glu Leu Lys Lys Asp Phe Asp Glu Leu Asn 145 150 155 160
- Val Val Ile Glu Thr Asp Met Gln Ile Met Val Arg Leu Ile Asn Lys 165 170 175
- Phe Asn Ser Ser Ser Ser Leu Glu Glu Lys Ile Ala Ala LeuPhe 180 185 190
- Asp Leu Glu Tyr Tyr Val His Gln Met Asp Asn Ala Gln Asp Leu Leu 195 200 205
- Ser Phe Gly Gly Leu Gln Val Val Ile Asn Gly Leu Asn Ser Thr Glu 210 215 220
- Pro Leu Val Lys Glu Tyr Ala Ala Phe Val Leu Gly Ala Ala Phe Ser 225 235 230 240
- Ser Asn Pro Lys Val Gln Val Glu Ala Ile Glu Gly Gly Ala Leu Gln 245 250 255
- Lys Leu Leu Val Ile Leu Ala Thr Glu Gln Pro Leu Thr Ala Lys Lys 260 265 270
- Lys Val Leu Phe Ala Leu Cys Ser Leu Leu Arg His Phe Pro Tyr Ala 275 280 285
- Gln Arg Gln Phe Leu Lys Leu Gly Gly Leu Gln Val Leu Arg Thr Leu 290 295 300
- Val Gln Glu Lys Gly Thr Glu Val Leu Ala Val Arg Val Val Thr Leu 305 310 315 320
- Leu Tyr Asp Leu Val Thr Glu Lys Met Phe Ala Glu Glu Glu Ala Glu 325
- Leu Thr Gln Glu Met Ser Pro Glu Lys Leu Gln Gln Tyr Arg Gln Val

340 345 350

His Leu Leu Pro Gly Leu Trp Glu Gln Gly Trp Cys Glu Ile Thr Ala 355 360 365

His Leu Leu Ala Leu Pro Glu His Asp Ala Arg Glu Lys Val Leu Gln 370 38

Thr Leu Gly Val Leu Leu Thr Thr Cys Arg Asp Arg Tyr Arg Gln Asp 385 390 395 400

Leu Ala Ser Leu Glu Leu Gln Asp Gly Glu Asp Glu Gly Tyr Phe Gln 420 425 430

Glu Leu Leu Gly Ser Val Asn Ser Leu Leu Lys Glu Leu Arg 435 440 445

<210> 414

<211> 140

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (129)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (132)

<223> Xaa equals any of the naturally occurring  $\mathtt{Bamino}$  acids

<220>

<221> SITE

<222> (134)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 414

Met Phe Phe Ser Leu Pro Gly Leu Trp Gln Ile Ala Ser Phe Thr His 1 5 10 15

Asn Leu Ile Phe His Leu Trp Val  ${\rm Trp}$  Gly Ser Glu Ser Gly Glu His 20 25 30

Leu Gln Ser His Asn Asp Pro Asp Thr Arg Gln Gly Gly His Ile Pro 35 40 45

Ile Arg Leu Gly Glu Ser Ser Ala Ser Val Po Gly Ser Ser Glu
50 60

Gly His Thr Gly Gly Pro Ala Pro Pro Arg Val Gly Gly Ser Ala Gly 65 70 75 80

- r Trp Pro ∆u Leu Gln 95
- o Ser Val Met Trp Gly 110
- p Gln Ser Lys Tp Pro 125
- g Gly 140

- Cys Ala Arg Ala Ser
- r Val Ala Ser Leu Gly
  30
- Glu Asn Tyr Lys Gln
  45
- y Val Glu His Ile Lys 60
- , Iè Ser Arg Gly Lys
  - Asp Pro Gly Ser Pro 95
- Leu Tyr Asp Asn Glu 110
- Gly Arg Val Ser Gly 125
- Val Lys Gy Gly Ala 140
- Ala Gln Glu Ile Ala 160
- Asp Ser Gly Gly Ad 175
- Arg Asp His Phe Gly 190

Arg Thr Phe Tyr Asn Gln Ala Ile Met Ser Ser Lys Asn Ile Ala Gln 195 Ile Ala Val Val Met Gly Ser Cys Thr Ala Gly Gly Ala Tyr Val Pro Ala Met Ala Asp Glu Asn Ile Ile Val Arg Lys Gln Gly Thr Ile Phe 230 Leu Ala Gly Pro Pro Leu Val Lys Ala Ala Thr Gly Glu Glu Val Ser 245 250 Ala Glu Asp Leu Gly Gly Ala Asp Leu His Cys Arg Lys Ser Gly Val 265 Ser Asp His Trp Ala Leu Asp Asp His His Ala Leu His Leu Thr Arg Lys Val Val Arg Asn Leu Asn Tyr Gln Lys Lys Leu Asp Val Thr Ile Glu Pro Ser Glu Glu Pro Leu Phe Pro Ala Asp Glu Leu Tyr Gly Ile Val Gly Ala Asn Leu Lys Arg Ser Phe Asp Val Arg Glu Val Ile Ala Arg Ile Val Asp Gly Ser Arg Phe Thr Glu Phe Lys Ala Phe Tyr Gly 345 Asp Thr Leu Val Thr Gly Phe Ala Arg Ile Phe Gly Tyr Pro Val Gly 360 Ile Val Gly Asn Asn Gly Val Leu Phe Ser Glu Ser Ala Lys Lys Gly 375 Thr His Phe Val Gln Leu Cys Cys Gln Arg Asn Ile Pro Leu Leu Phe 395 Leu Gln Asn Ile Thr Gly Phe Met Val Gly Arg Glu Tyr Glu Ala Glu Gly Ile Ala Lys Asp Gly Ala Lys Met Val Ala Ala Val Ala Cys Ala Gln Val Pro Lys Ile Thr Leu Ile Ile Gly Gly Ser Tyr Gly Ala Gly 440 Asn Tyr Gly Met Cys Gly Arg Ala Tyr Ser Pro Arg Phe Leu Tyr Ile Trp Pro Asn Ala Arg Ile Ser Val Met Gly Gly Glu Gln Ala Asn 470 Val Leu Ala Thr Ile Thr Lys Asp Gln Arg Ala Arg Glu Gly Lys Gln 490

Phe Ser Ser Ala Asp Glu Ala Ala Leu Lys Glu Pro Ile Ile Lys Lys 500 505 510

Phe Glu Glu Glu Gly Asn Pro Tyr Tyr Ser Ser Ala Arg Val Trp Asp 515 520 525

Asp Gly Ile Ile Asp Pro Ala Asp Thr Arg Leu Val Leu Gly Leu Ser 530 540

Phe Ser Ala Ala Leu Asn Ala Pro Ile Glu Lys Thr Asp Phe Gly Ile 545 550 555 560

Phe Arg Met

<210> 416

<211> 53

<212> PRT

<213> Homo sapiens

<400> 416

Met Val Gln Phe Glu Val Ile Phe Leu Leu Phe Gly Leu Cys Phe Ser  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Ser Ser Ser Ser Arg Leu Val Gly Ser Gln Val Glu Asn Phe Ser Pro 20 25 30

Thr Pro Cys Ile Phe Gln Ala Phe Arg Cys Ser Ser Leu Ala Ile Ile  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Ser Met Ser Leu Ser 50

<210> 417

<211> 421

<212> PRT

<213> Homo sapiens

<400> 417

Met Thr Val Phe Phe Lys Thr Leu Arg Asn His Trp Lys Lys Thr Thr  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Ala Gly Leu Cys Leu Leu Thr Trp Gly Gly His Trp Leu Tyr Gly Lys 20 25 30

His Cys Asp Asn Leu Leu Arg Arg Ala Ala Cys Gln Glu Ala Gln Val\$35\$ 40 45

Phe Gly Asn Gln Leu Ile Pro Pro Asn Ala Gln Val Lys Lys Ala Thr 50 60

Val Phe Ser Ile Leu Gln Leu Ala Lys Glu Lys Pro Gly Leu Tyr Leu 65 70 75 80

Lys Lys Met Leu Pro Asp Phe Thr Phe Ile Trp His Gly Cys Asp Tyr 90 Cys Lys Thr Asp Tyr Glu Gly Gln Ala Lys Lys Leu Leu Glu Leu Met 105 Glu Asn Thr Asp Val Ile Ile Val Ala Gly Gly Asp Gly Thr Leu Gln 115 Glu Val Val Thr Gly Val Leu Arg Arg Thr Asp Glu Ala Thr Phe Ser 135 Lys Ile Pro Ile Gly Phe Ile Pro Leu Gly Glu Thr Ser Ser Leu Ser 150 155 His Thr Leu Phe Ala Glu Ser Gly Asn Lys Val Gln His Ile Thr Asp 170 Ala Thr Leu Ala Ile Val Lys Gly Glu Thr Val Pro Leu Asp Val Leu Gln Ile Lys Gly Glu Lys Glu Gln Pro Val Phe Ala Met Thr Gly Leu Arg Trp Gly Ser Phe Arg Asp Ala Gly Val Lys Val Ser Lys Tyr Trp Tyr Leu Gly Pro Leu Lys Ile Lys Ala Ala His PhePhe Ser Thr Leu 225 235 Lys Glu Trp Pro Gln Thr His Gln Ala Ser Ile Ser Tyr Thr Gly Pro 245 250 Thr Glu Arg Pro Pro Asn Glu Pro Glu Glu ThrPro Val Gln Arg Pro 260 265 Ser Leu Tyr Arg Arg Ile Leu Arg Arg Leu Ala Ser Tyr Trp Ala Gln 280 Pro Gln Asp Ala Leu Ser Gln Glu Val Ser Pro Glu Val TrpLys Asp 295 Val Gln Leu Ser Thr Ile Glu Leu Ser Ile Thr Thr Arg Asn Asn Gln 310 315 Leu Asp Pro Thr Ser Lys Glu Asp Phe Leu Asn Ile Cys Ile Glu Pro 325 Asp Thr Ile Ser Lys Gly Asp Phe Ile Thr Ile Gly Ser Arg Lys Val 345 Arg Asn Pro Lys Leu His Val Glu Gly Thr Glu Cys Leu Gln Ala Ser 355 Gln Cys Thr Leu Leu Ile Pro Glu Gly Ala Gly Gly Ser Phe Ser Ile 375 380

Asp Ser Glu Glu Tyr Glu Ala Met Pro Val Glu Val Lys Leu Leu Pro 385 390 395 400

Arg Lys Leu Gln Phe Phe Cys Asp Pro Arg Lys Arg Glu Gln Met Leu 405 410 415

Thr Ser Pro Thr Gln 420

<210> 418

<211> 242

<212> PRT

<213> Homo sapiens

<400> 418

Met Gln Leu Gly Ser Val Leu Leu Thr Arg Cys Pro Phe Trp Gly Cys
1 5 10 15

Phe Ser Gln Leu Met Leu Tyr Ala Glu Arg Ala Glu Ala Arg Arg Lys 20 25 30

Pro Asp Ile Pro Val Pro Tyr Leu Tyr Phe Asp Met Gly Ala Ala Val 35 40 45

Leu Cys Ala Ser Phe Met Ser Phe Gly Val Lys Arg Arg Trp Phe Ala 50 55 60

Leu Gly Ala Ala Leu Gln Leu Ala Ile Ser Thr Tyr Ala Ala Tyr Ile 65 70 75 80

Gly Gly Tyr Val His Tyr Gly Asp Trp Leu Lys Val Arg Met Tyr Ser 85 90 95

Arg Thr Val Ala Ile Ile Gly Gly Phe Leu Val Leu Ala Ser Gly Ala 100  $$105\,$ 

Gly Glu Leu Tyr Arg Arg Lys Pro Arg Ser Arg Ser Leu Gln Ser Thr 115 120 125

Gly Gln Val Phe Leu Gly Ile Tyr Leu Ile Cys Val Ala Tyr Ser Leu 130 135 140

Gln His Ser Lys Glu Asp Arg Leu Ala Tyr Leu Asn His Leu Pro Gly 145 150 155 160

Gly Glu Leu Met Ile Gln Leu Phe Phe Val Leu Tyr Gly Ile Leu Ala 165 170 175

Leu Ala Phe Leu Ser Gly Tyr Tyr Val Thr Leu Ala Ala Gln Ile Leu 180 185 190

Ala Val Leu Leu Pro Pro Val Met Leu Leu Ile Asp Gly Asn Val Ala 195 200 205

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Tyr Trp His Asn Thr Arg Arg Val Glu Phe Trp Asn Gln Met Lys Leu
  210
        215
Leu Gly Glu Ser Val Gly Ile Phe Gly Thr Ala Val Ile Leu Ala Thr
                                      235
Asp Gly
<210> 419
<211> 41
<212> PRT
<213> Homo sapiens
<400> 419
Met Ala Thr Leu Gln Ile Thr Thr Ala Met Lys Ile Thr Met Met Ile
Thr Met Val Met Ile Ile Thr Thr Ile Val Glu Ala Met Lys Ile Pro
Thr Thr Ala Met Met Met Ala Met Gln
         35
<210> 420
<211> 50
<212> PRT
<213> Homo sapiens
<400> 420
Met Tyr Ile Phe Glu Leu Ser Leu Tyr Leu Glu Gly Thr Ser Phe Val
Val Val Leu Leu Phe Leu Leu Ile Ser Val Ser Leu Asp Ser Pro Pro
Thr Thr Lys Gly Trp Asp Ser Val Leu His Ile Trp Val Pro Leu Ile
                            4.0
Val Gln
    50
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<210> 421 <211> 189

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (94)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 421

Met Ala Leu Leu Ser Arg Pro Ala Leu Thr Leu Leu Leu Leu Met 1 5 10 15

Ala Ala Val Val Arg Cys Gln Glu Gln Ala Gln Thr Thr Asp Trp Arg  $20 \hspace{1cm} 25 \hspace{1cm} 30$ 

Ala Thr Leu Lys Thr Ile Arg Asn Gly Val His Lys Ile Asp Thr Tyr  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Leu Asn Ala Ala Leu Asp Leu Leu Gy Gly Glu Asp Gly Leu Cys Gln 50 55 60

Tyr Lys Cys Ser Asp Gly Ser Lys Pro Phe Pro Arg Tyr Gly Tyr Lys 65 70 75 80

Pro Ser Pro Pro Asn Gly Cys Gly Ser Pro Bu Phe Gly Xaa His Leu 85 90 95

Asn Ile Gly Ile Pro Ser Leu Thr Lys Cys Cys Asn Gln His Asp Arg 100 105 110

Cys Tyr Glu Thr Cys Gly Lys Ser Lys Asn Asp 🔉 Asp Glu Glu Phe 115 120 125

Gln Tyr Cys Leu Ser Lys Ile Cys Arg Asp Val Gln Lys Thr Leu Gly 130 140

Leu Thr Gln His Val Gln Ala Cys Glu Thr Thr Val Glu Leu Leu Phe 145 150 155 160

Asp Ser Val Ile His Leu Gly Cys Lys Pro Tyr Leu Asp Ser Gln Arg 165 170 175

Ala Ala Cys Arg Cys His Tyr Glu Glu Lys Thr Asp Leu 180 185

<210> 422

<211> 140

<212> PRT

<213> Homo sapiens

<400> 422

Met Leu Gly Thr Ser Leu Ile Tyr Trp Thr Leu Phe Thr Leu Gly Leu 1 5 10 15

Asp Leu Ser Trp Ser Ile Ser Leu Ala Phe Lys Trp Cys Glu Arg Pro 20 25 30

Glu Trp Ile His Val Asp Ser Arg Pro Phe Ala Ser Leu Ser Arg Asp  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Ser Gly Ala Ala Leu Gly Leu Gly Ile Ah Leu His Ser Pro Cys Tyr 50 60

Ala Gln Val Arg Arg Ala Gln Leu Gly Asn Gly Gln Lys Ile Ala Cys 65 70 75 80

Leu Val Leu Ala Met Gly Leu Leu Gly Pro Leu Ap Trp Leu Gly His 85 90 95

Pro Pro Gln Ile Ser Leu Phe Tyr Ile Phe Asn Phe Leu Lys Tyr Thr 100 105 110

Leu Trp Pro Cys Leu Val Leu Ala Leu Val Pro Trp A $\upbeta$  Val His Met 115 120 125

Phe Ser Ala Gln Glu Ala Pro Pro Ile His Ser Ser 130 135 140

<210> 423

<211> 64

<212> PRT

<213> Homo sapiens

<400> 423

Met Pro Leu Phe Leu Phe Val Ala His Leu Ile Ser Leu Leu Ala 1 5 10 15

Phe Arg Arg Pro Pro Ala Ser Gln Ile Thr Pro Arg Ala Trp Thr Thr 20 25 30

Glu Ile Ala Ser Cys Glu Ser Val Glu Met Val Lys Ala Leu Ser Ser 35 40 45

Leu Arg Ser Arg Ala Gln Val Asn Ala Asp Phe Pro Gly His Leu Cys
50 60

<210> 424

<211> 49

<212> PRT

<213> Homo sapiens

<400> 424

Met Asn Leu Leu Gly Met Ile Phe Ser Met Cys Gly Leu Met Leu Lys  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Leu Lys Trp Cys Ala Trp Val Ala Val Tyr Cys Ser Phe Ile Ser Phe 20 25 30

Ala Asn Ser Arg Ser Ser Glu Asp Thr Lys Gln Met Met Ser Ser Phe 35 40 45

Met

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<210> 425
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<211> 59

<212> PRT

<213> Homo sapiens

<400> 425

Met Asn Ser Thr Leu Cys Val Val Leu Ser Leu Met Cys Met Asn Ser  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Thr Leu Cys Val Val Leu Ser Leu Thr His Ser Cys Pro Ser Pro Gln 20 25 30

Val Pro Lys Val His Tyr Met I $\mathbf k$ e Phe Met Pro Leu His Leu His Ser 35 40 45

Leu Ala Leu Thr Gln Leu Ile Ile Ile Tyr Lys

<210> 426

<211> 240

<212> PRT

<213> Homo sapiens

<400> 426

Met Gly Asn Cys Gln Ala Gly His Asn Leu His Leu Cys Leu Ala His 1 5 10 15

His Pro Pro Leu Val Cys Ala Thr Leu Ile Leu Leu Leu Gly Leu 20 25 30

Ser Gly Leu Gly Ser Phe Leu Leu Thr His Arg Thr Gly Leu 35 40 45

Arg Ser Pro Asp Ile Pro Gln Asp Trp Val Ser Phe Leu Arg Ser Phe 50 60

Gly Gln Leu Thr Leu Cys Pro Arg Asn Gly ThrVal Thr Gly Lys Trp
65 70 75 80

Arg Gly Ser His Val Val Gly Leu Leu Thr Thr Leu Asn Phe Gly Asp  $85 \\ 90 \\ 95$ 

Gly Pro Asp Arg Asn Lys Thr Arg Thr PheGln Ala Thr Val Leu Gly  $100 \\ 105 \\ 110$ 

Ser Gln Met Gly Leu Lys Gly Ser Ser Ala Gly Gln Leu Val Leu Ile 115 120 125

Thr Ala Arg Val Thr Thr Glu Arg Thr Ala Gly Thr CysLeu Tyr Phe 130 140

- Ser Ala Val Pro Gly Ile Leu Pro Ser Ser Gln Pro Pro Ile Ser Cys 145 150 155 160
- Ser Glu Glu Gly Ala Gly Asn Ala Thr Leu Ser Pro Arg Met GlyGlu 165 170 175
- Glu Cys Val Ser Val Trp Ser His Glu Gly Leu Val Leu Thr Lys Leu 180 185 190
- Leu Thr Ser Glu Glu Leu Ala Leu Cys Gly Ser Arg Leu Leu Val Leu 195 200 205
- Gly Ser Phe Leu Leu Leu Phe Cys Gly Leu Leu Cys Cys Val Thr Ala 210 215 220
- Met Cys Phe His Pro Arg Arg Glu Ser His Trp Ser Arg Thr Arg Leu 225 230 235 240

<210> 427

<211> 185

<212> PRT

<213> Homo sapiens

<400> 427

- Met Ser Pro Ser Gly Arg Leu Cys Leu Leu Thr Ile Val Gly Leu Ile 1 5 10 15
- Leu Pro Thr Arg Gly Gln Thr Leu Lys Asp Thr Thr Ser Ser Ser Ser 20 25 30
- Ala Asp Ser Thr Ile Met Asp Ile Gln Val Pro Thr Arg Ala Pro Asp  $35 \hspace{1cm} 40 \hspace{1cm} 45$
- Ala Val Tyr Thr Glu Leu Gln Pro Thr Ser Pro Thr Pro Thr Trp Pro 50 55 60
- Ala Asp Glu Thr Pro Gln Pro Gln Thr Gln Thr Gln Gln Leu Glu Gly 65 70 75 80
- Thr Asp Gly Pro Leu Val Thr Asp Pro Glu Thr His Lys Ser Thr Lys 85 90 95
- Ala Ala His Pro Thr Asp Asp Thr Thr Thr Leu Ser Glu Arg Pro Ser 100 105 110
- Pro Ser Thr Asp Val Gln Thr Asp Pro Gln Thr Leu Lys Pro Ser Gly 115 120 125
- Phe His Glu Asp Asp Pro Phe Phe Tyr Asp Glu His Thr Leu Arg Lys 130 135 140
- Arg Gly Leu Leu Val Ala Ala Val Leu Phe Ile ThrGly Ile Ile Ile

145 150 155 160

Leu Thr Ser Gly Lys Cys Arg Gln Leu Ser Arg Tyr Ala Gly Ile Ile 165 170 175

Gly Gly Glu Ser Ile Arg Asn Arg Ser 180 185

<210> 428

<211> 39

<212> PRT

<213> Homo sapiens

<400> 428

Met Leu Leu Leu Lys Thr Leu Phe Val Thr Phe Trp Ser Thr Asn 1 5 10 15

Leu Ser Ile Thr Phe Ser Asn Tyr Asn Val Lys Leu Tyr Gln Trp Gln 20 25 30

Ser Tyr Ile Val Asn Gly Ser 35

<210> 429

<211> 174

<212> PRT

<213> Homo sapiens

<400> 429

Met Glu Ala Pro Gly Pro Arg Ala Leu Arg Thr Ala Leu Cys Gly Gly 1 5 10 15

Cys Cys Cys Leu Leu Cys Ala Gln Leu Ala Val Ala Gly Lys Gly
20 25 30

Ala Arg Gly Phe Gly Arg Gly Ala Leu Ile Arg Le Asn Ile Trp Pro 35 40 45

Ala Val Gln Gly Ala Cys Lys Gln Leu Glu Val Cys Glu His Cys Val 50 60

Glu Gly Asp Arg Ala Arg Asn Leu Ser Ser Cys Met Trp Glu Gln Cys
65 70 75 80

Arg Pro Glu Glu Pro Gly His Cys Val Ala Gln Ser Glu Val Val Lys
85 90 95

Glu Gly Cys Ser Ile Tyr Asn Arg Ser Glu Ala Cys Pro Ala Ala Hsi 100 105 110

His His Pro Thr Tyr Glu Pro Lys Thr Val Thr Thr Gly Ser Pro Pro 115 120 125

Val Pro Glu Ala His Ser Pro Gly Phe Asp Gly Ala Ser Phe Ile Gly 130  $$135\$ 

Gly Val Val Leu Val Leu Ser Leu Gln Ala Val Ala Phe Phe Val Leu 145 150 155 160

His Phe Leu Lys Ala Lys Asp Ser Thr Tyr Gln Thr Leu Ile 165 170

<210> 430

<211> 40

<212> PRT

<213> Homo sapiens

<400> 430

Met Pro Phe Ser Ser Val Lys Cys Leu Phe Gly Val Leu Leu Arg  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Phe Cys Phe Val Val Phe Ser Val Val Val Phe Thr Phe Leu Ser 20 25 30

Ile Pro Lys Arg Thr Leu Gly Tyr 35 40

<210> 431

<211> 46

<212> PRT

<213> Homo sapiens

<400> 431

Met Glu Met Leu Ser Ser Lys Trp Ser Lys Arg Val Ala Ala Ser Leu  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Ala His Leu Ile Ser Leu Phe Ile Gly Leu Leu Phe Leu Leu Gly 20 25 30

Ser Ser Val Tyr Pro Gly Thr Glu Thr Le Phe Pro Lys Ser 35 40 45

<210> 432

<211> 61

<212> PRT

<213> Homo sapiens

<400> 432

Met Tyr Leu Phe Leu Lys Thr Leu Leu Ser Phe Ser Thr Leu Met Met 1 5 10 15

Thr Thr Ala Leu Ser Phe Met Val Ile Thr Val Leu Trp Val Leu Leu 20 25 30

Leu His Leu Leu Ala Asn Ile Cys Ile Pro Arg Lys Cys Ser Phe Ala 35 40 45

Cys Phe Tyr Ile Asn Gly Ile Leu Leu His Ala Val Phe 50 55 60

<210> 433

<211> 319

<212> PRT

<213> Homo sapiens

<400> 433

Met Ser Trp Cys Cys Leu Trp Leu Cys Leu Ser Ser Val Gly Arg Thr 1 5 10 15

Gly Ser Ala Gly Pro Ser Leu Pro Phe Ser Glu Leu Cys Ser Leu Gly
20 25 30

Leu Leu Arg Leu Arg Pro Val Phe Ser Pro Leu His Ser Gly Pro Gly 35 40 45

Lys Pro Ala Gln Phe Leu Ala Gly Glu Ala Glu Glu Val Asn Ala Phe 50 55 60

Ala Leu Gly Phe Leu Ser Thr Ser Ser Gly Val Ser Gly Glu Asp Glu 65 70 75 80

Val Glu Pro Leu His Asp Gly Val Glu Glu Ala Glu Lys Lys Met Glu 85 90 95

Glu Glu Gly Val Ser Val Ser Glu Met Glu Ala Thr Gly Ala Gln Gly
100 105 110

Pro Ser Arg Val Glu Glu Ala Glu Gly His Thr Glu Val Thr Glu Ala 115 120 125

Glu Gly Ser Gln Gly Thr Ala Glu Ala Asp Gly Pro Gly Ala Ser Ser 130 135 140

Gly Asp Glu Asp Ala Ser Gly Arg Ala Ala Ser Pro Glu Ser Ala Ser 145 150 155 160

Ser Thr Pro Glu Ser Leu Gln Ala Arg Arg His His Gln Phe Leu Glu 165 170 175

Pro Ala Pro Ala Pro Gly Ala Ala Val Leu Ser Ser Glu Pro Ala Glu 180 185 190

Pro Leu Leu Val Arg His Pro Pro Arg Pro Arg Thr Thr Gly Pro Arg 195 200 205

Pro Arg Gln Asp Pro His Lys Ala Gly Leu Ser His Tyr Val Lys Leu 210 215 220

Phe Ser Phe Tyr Ala Lys Met Pro Met Glu Arg Lys Ala Leu Glu Met

225 230 235 240

Val Glu Lys Cys Leu Asp Lys Tyr Phe Gln His Leu Cys Asp Asp Leu 245 250 255

Glu Val Phe Ala Ala His Ala Gly Arg Lys Thr Val Lys Pro Glu Asp  $260 \hspace{1.5cm} 265 \hspace{1.5cm} 270$ 

Leu Glu Leu Met Arg Arg Gln Gly Leu Val Thr Asp Gln Val Ser 275 280 285

Leu His Val Leu Val Glu Arg His Leu Pro Leu Glu Tyr Arg Gln Leu 290 295 300

Leu Ile Pro Cys Ala Tyr Ser Gly Asn Ser Val Phe Pro Ala Gln 305 310 315

<210> 434

<211> 336

<212> PRT

<213> Homo sapiens

<400> 434

Met Ile Ser Tyr Ile Val Leu Leu Ser Ile Leu Leu Trp Pro Leu Val 1 5 10 15

Val Tyr His Glu Leu Ile Gln Arg Met Tyr Thr Arg Leu Glu Pro Leu 20 25 30

Leu Met Gln Leu Asp Tyr Ser Met Lys Ala Glu Ala Asn Ala Leu His  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

His Lys His Asp Lys Arg Lys Arg Gln Gly Lys Asn Ala Pro Pro Gly 50 55 60

Gly Asp Glu Pro Leu Ala Glu Thr Glu Ser Glu Ser Glu Ala Glu Leu 65 70 75 80

Ala Gly Phe Ser Pro Val Val Asp Val Lys Lys Thr Ala Leu Ala Leu 85 90 95

Ala Ile Thr Asp Ser Glu Leu Ser Asp Glu Glu Ala Ser Ile Leu Glu 100 105 110

Ser Gly Gly Phe Ser Val Ser Arg Ala Thr Thr Pro Gln Leu Thr Asp 115 120 125

Val Ser Glu Asp Leu Asp Gln Gln Ser Leu Pro Ser Glu Pro Glu Glu 130 135 140

Thr Leu Ser Arg Asp Leu Gly Glu Gly Glu Gly Glu Leu Ala Pro 145 150 155 160

Pro Glu Asp Leu Leu Gly Arg Pro Gln Ala Leu Ser Arg Gln Ala Leu 165 170 175

- Asp Ser Glu Glu Glu Glu Asp Val Ala Ala Lys Glu Thr Leu Leu 180 185 190
- Arg Leu Ser Ser Pro Leu His Phe Val Asn Thr His Phe Asn Gly Ala 195 200 205
- Gly Ser Pro Gln Asp Gly Val Lys Cys Ser Pro Gly Gly Pro Val Glu 210 215 220
- Thr Leu Ser Pro Glu Thr Val Ser Gly Gly Leu Thr Ala Leu Pro Gly 225 235 240
- Thr Leu Ser Pro Pro Leu Cys Leu Val Gly S $\alpha$  Asp Pro Ala Pro Ser 245 250 255
- Pro Ser Ile Leu Pro Pro Val Pro Gln Asp Ser Pro Gln Pro Leu Pro 260 265 270
- Ala Pro Glu Glu Glu Glu Ala Leu Thr Thr Glu Ap Phe Glu Leu Leu 275 280 285
- Asp Gln Gly Glu Leu Glu Gln Leu Asn Ala Glu Leu Gly Leu Glu Pro 290 295 300
- Glu Thr Pro Pro Lys Pro Pro Asp Ala Pro Pro Leu Gly Pro Asp Ile 305 310 315 320
- His Ser Leu Val Gln Ser Asp Gln Glu Ala Gln Ala Val Ala Glu Pro 325 330 335

<210> 435

<211> 272

<212> PRT

<213> Homo sapiens

<400> 435

- Met Trp Gly Asn Lys Phe Gly Val Leu Leu Phe Leu Tyr Ser Val Leu 1 5 10 15
- Leu Thr Lys Gly Ile Glu Asn Ile Lys Asn Glu Ile Glu Asp Ala Ser 20 25 30
- Glu Pro Leu Ile Asp Pro Val Tyr Gly His Gly Ser Gln Ser Leu Ile 35 40 45
- Asn Leu Leu Thr Gly His Ala Val Ser Asn Val Trp Asp Gly Asp 50 55 60
- Arg Glu Cys Ser Gly Met Lys Leu Leu Gly Ile His Glu Gln Ala Ala 65 70 75 80

- Val Gly Phe Leu Thr Leu Met Glu Ala Leu Arg Tyr Cys Lys Val Gly 85 90 95
- Ser Tyr Leu Lys Ser Pro Lys Phe Pro Ile Trp Ile Val Gly Ser Glu 100 105 110
- Thr His Leu Thr Val Phe Phe Ala Lys Asp Met Ala Leu Val Ala Pro 115 120 125
- Glu Ala Pro Ser Glu Gln Ala Arg Arg Val Phe Gln Thr Tyr Asp Pro 130 135 140
- Glu Asp Asn Gly Phe Ile Pro Asp Ser Leu Leu Glu Asp Val Met Lys 150 150 155 160
- Ala Leu Asp Leu Val Ser Asp Pro Glu Tyr Ile Asn Leu Met Lys Asn 165 170 175
- Lys Leu Asp Pro Glu Gly Leu Gly Ile Ile Leu Leu Gly Pro Phe Leu
  180 185 190
- Gln Glu Phe Phe Pro Asp Gln Gly Ser Ser Gly Pro Glu Ser Phe Thr  $195 \hspace{1.5cm} 200 \hspace{1.5cm} 205$
- Val Tyr His Tyr Asn Gly Leu Lys Gln Ser Asn Tyr Asn Glu Lys Val 210 215 220
- Met Tyr Val Glu Gly Thr Ala Val Val Met Gly Phe Gh Asp Pro Met 225 230 235 240
- Leu Gln Thr Asp Asp Thr Pro Ile Lys Arg Cys Leu Gln Thr Lys Trp 245 250 255
- Pro Tyr Ile Glu Leu Leu Trp Thr Thr Asp Arg Sæ Pro Ser Leu Asn  $260 \hspace{1.5cm} 265 \hspace{1.5cm} 270 \hspace{1.5cm}$
- <210> 436
- <211> 89
- <212> PRT
- <213> Homo sapiens
- <400> 436
- Met Phe Lys Asp Tyr Pro Pro Ala Ile Lys Pro Ser Tyr Asp Val Leu  $1 \hspace{1cm} 5 \hspace{1cm} D \hspace{1cm} 15$
- Leu Leu Leu Leu Leu Val Leu Leu Gln Ala Gly Leu Asn Thr
  20 25 30
- Gly Thr Ala Ile Gln Cys Val Arg Phe Lys Val Ser Ala Arg Leu Gln 35 40 45
- Gly Ala Ser Trp Asp Thr Gln Asn Gly Pro Gln Glu Arg Leu Ala Gly

50 55 60

Glu Val Ala Arg Ser Pro Leu Lys Glu Phe Asp Lys Glu Lys Ala Trp 65 70 75 ®

Arg Ala Val Val Gln Met Ala Gln 85

<210> 437

<211> 52

<212> PRT

<213> Homo sapiens

<400> 437

Met Tyr Leu Met Ser Phe Ser Ile His Phe Val Lys Ile Ile Cys Met 1 5 10 15

Cys Thr Ile Leu Val Leu Ser Pro Pro Val Leu Leu Lys Tyr Gln Asp 20 25 30

Ser Thr Pro Arg Pro Leu Trp Ser Gln Cys Lys Ile Pro Ile Asn Tyr 35 40 45

Leu Lys Gly Lys 50

<210> 438

<211> 51

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 438

Met Ala Gln His His Leu Leu Ser Ile Leu Leu Ala Ile Leu Ser Cys  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Ser Ser Gln Pro Arg Gln Xaa Arg Gly Ser Gly Ala Leu Pro Cys Glu 20 25 30

Val Cys Ser Ala Val Leu Leu Thr Cys Leu Arg Lys Ile Ser Gly Ser 35 40 45

Leu Cys Val

<210> 439

<211> 63

<212> PRT

<213> Homo sapiens

<400> 439

Met Leu Arg Gly Trp Ala Leu Ser Thr Phe Leu Val Cys Ile Leu Gln  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Trp Val Arg Ser Leu Thr Ile Arg Leu Ala Ser Ala Leu Ser Val Arg

Gly Pro Ser Ser Ile Pro Ala Ser Leu Ala Ile Ile Tyr Thr Leu Phe 35 40 45

Ile Phe Ser Phe Lys Phe Leu Lys Ile Val Lys Ser Ile Tyr Ile 50 55 60

<210> 440

<211> 74

<212> PRT

<213> Homo sapiens

<400> 440

Met Leu His Leu Ala Ala Met Trp Trp Ala Cys Val Thr Thr Leu Val  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Phe Thr Leu Val Ser Lys Leu Phe Ile Pro Leu Lys Ser Ser Met Asp 20 25 30

Gly Glu Met Ser Leu Asp Pro His Ser Cys Val Leu Val Cys Ile Cys 35 40 45

Phe Pro Leu Arg Phe Val Phe Val Ser Cys Phe Glu Leu Tyr Leu Val 50 55 60

Gln Ser Ile Val Lys Leu Ser Gln Gln Leu 65 70

<210> 441

<211> 127

<212> PRT

<213> Homo sapiens

<400> 441

Met Gly Gln Val Trp Arg Val Pro Pro Leu Leu Leu Ser Val Gln Val 1 5 10 15

Phe Leu Thr Met Ala His Ala Phe His Gln Ala Pro Glu Leu Gln Trp 20 25 30

Leu Gly Leu Trp Phe Trp Val Arg Leu Phe Ala Gly Gly Asp Gly Gly 35 40 45

Leu His Leu Asn Ile Ser Ser Val Thr Leu Pro Leu Leu His Gly Lys

```
50 55 60
```

Gln Leu Ser Arg Glu Val Pro Ser Cys Gln Gly Lys Pro Arg Leu Gly
65 70 75 80

Arg Pro Pro Tyr Lys Glu Pro Gln Asp Cys Ser His Gly Cys His Leu 85 90 95

Ser Trp Lys Gly Arg Phe Met Gly Phe Pro Gly Thr Pro Arg Leu Ser 100 105 110

Trp Pro Arg Gly Lys Arg Trp Leu Leu Gln Glu Phe Asp Leu Ser 115 120 125

<210> 442

<211> 43

<212> PRT

<213> Homo sapiens

<400> 442

Met Ser Ala Leu Ser Phe Thr Ser Tyr Phe Leu Leu Leu Leu Arg Val  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Lys Pro Val Glu Val Ser Gly Ser Ile Pro His Pro Gût Gln Pro Asn  $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$ 

Val Leu Cys Leu Val Leu Pro Thr Phe Gly Tyr 35

<210> 443

<211> 2

<212> PRT

<213> Homo sapiens

<400> 443 Leu Gln

<210> 444

<211> 44

<212> PRT

<213> Homo sapiens

<400> 444

Met Met Pro Leu Lys Leu His Ala Lys Cys Leu Tyr Leu Leu Lys Cys

Val Phe Phe Val Gly Val Gly Gly Met Thr Phe Tyr Gln Ile Leu Thr 20 25 30

Gly Phe Lys Ile Gln Lys Ser Leu Asp Leu Val Gly

35 40

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<210> 445
<211> 47
<212> PRT
<213> Homo sapiens
<400> 445
Met Phe Tyr Pro Pro Cys Pro Phe Phe Pro Gln Leu Cys Mee Cys Ile
                                    1.0
Phe Phe Leu Gly Lys Cys Lys Leu Ser Leu Ser Phe Met Thr Cys Glu
                                 25
Ile Ser Val Ser Leu Glu Phe Val Arg Arg Arg Gly Asn His Aa
                             40
<210> 446
<211> 100
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (36)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (47)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (51)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (83)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 446
Met Gly Met Ile Leu Val Leu Ala Ser Phe Leu Ala His Pro Val Glu
1
                 - 5
                                     10
                                                         15
Ala Leu Ala Gln Ala Val Ala Leu Gly Gln Gln Leu Ala Leu Leu
Gly Val Gln Xaa His Ala Val Glu Gly Phe Leu Gln Leu Gln Xaa Cys
         35
```

40

Phe Ala Xaa Leu Phe Val Phe Glu Gly Ala Leu Leu Ala His Leu Gly

45

50 55 60

His Phe Phe Val Glu Pm Gly Ala Ala Gln Gly Gln Leu Leu Asp Leu 65 70 75 80

Gly Leu Xaa Arg Arg Glu Leu Gly Phe Gln Phe Ala Leu Leu Ala Arg 85 90 95

Phe Val Leu Gln 100

<210> 447

<211> 40

<212> PRT

<213> Homo sapiens

<400> 447

Met Ile Ile Leu His Ile Val Val Cys Leu Phe Thr Ile Ser Ile Ile 1 5 10 15

Glu Glu Glu Lys Glu Glu Ile Leu Cys SerThr Lys Ser Gln Ala Glu 20 25 30

Lys Thr Val Thr His Ile Glu Gln 35 40

<210> 448

<211> 45

<212> PRT

<213> Homo sapiens

<400> 448

Met Gln Lys Lys Leu Val Cys Tyr Leu Met Leu Arg Gln Tyr Phe  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Phe Leu Val Val Val Ser Leu Pro Trp Pro Cys Val Leu Phe Gln Met 20 25 30

His Tyr Pro Arg Thr Val Thr Pro Thr Lee Thr Glu Tyr 35

<210> 449

<211> 146

<212> PRT

<213> Homo sapiens

<400> 449

Met Trp Lys Leu Trp Arg Ala Glu Glu Gly Ala Ala Ala Leu Gly Gly 1 5 10

Ala Leu Phe Leu Leu Phe Ala Leu Gly Val Arg Gln Leu Leu Lys

20	25	30

Gln Arg Arg Pro Met Gly Phe Pro Pro Gly Pro Pro Gly Leu Pro Phe 35 40 45

Tyr Met Arg Lys Gln Ser Gln Val Tyr Gly Glu Val Gln Pro Arg Arg 65 70 75 80

Ala Pro Gly Arg Glu Gly Arg Gln Ala Gly Pro Gly Trp Pro Gly Pro 85 90 95

Ser Trp Leu Asp Leu Trp Pro Pro Leu Gly Arg Leu Val Gly Thr Ser 100 105 110

Pro Cys Ala Gly Cys Pro Leu Arg Asp Thr Arg Phe Pro Gly Leu Glu
115 120 125

Gly Arg Ser Pro Arg Arg Ala Pro Leu Gln Gly Glu Pro Arg Pro 130 135 140

Cys Arg 145

<210> 450

<211> 941

<212> PRT

<213> Homo sapiens

<400> 450

Met Val Phe Leu Pro Leu Lys Trp Ser Leu Ala Thr Met Ser Phe Leu  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Leu Ser Ser Leu Leu Ala Leu Leu Thr Val Ser Thr Pro Ser Trp Cys  $20 \\ 20 \\ 25 \\ 30$ 

Gln Ser Thr Glu Ala Ser Pro Lys Arg Ser Asp Gly Thr Pro Phe Pro 35 40 45

Trp Asn Lys Ile Arg Leu Pro Glu Tyr Val Ile Pro Val His Tyr Asp 50 55 60

Leu Leu Ile His Ala Asn Leu Thr Thr Leu Thr Phe Trp Gly Thr Thr 65 70 75 80

Lys Val Glu Ile Thr Ala Ser Gln Pro Thr Ser Thr Ile Ile Leu His  $85 \hspace{1cm} 90 \hspace{1cm} 95$ 

Ser His His Leu Gln Ile Ser Arg Ala Thr Leu Arg Lys Gly Ala Gly 100 105 110

Glu Arg Leu Ser Glu Glu Pro Leu Gln Val Leu Glu His Pro Pro Gln
115 120 125

- Glu Gln Ile Ala Leu Leu Ala Pro Glu Pro Leu Leu Val Gly Leu Pro 130 135 140
- Tyr Thr Val Val Ile His Tyr Ala Gly Asn Leu Ser Glu Thr Phe His 145 150 155 160
- Gly Phe Tyr Lys Ser Thr Tyr Arg Thr Lys Glu Gly Glu Leu Arg Ile 165 170 175
- Leu Ala Ser Thr Gln Phe Glu Pro Thr Ala Ala Arg Met Ala Phe Pro  $180 \hspace{1cm} 185 \hspace{1cm} 190 \hspace{1cm}$
- Cys Phe Asp Glu Pro Ala Phe Lys Ala Ser Phe Ser Ile Lys Ile Arg 195 200 205
- Arg Glu Pro Arg His Leu Ala Ile Ser Asn Met Pro Leu Val Lys Ser 210 215 220
- Val Thr Val Ala Glu Gly Leu Ile Glu Asp His Phe Asp Val Thr Val 225 230 235 240
- Lys Met Ser Thr Tyr Leu Val Ala Phe Ile Ile Ser Asp Phe Glu Ser 245 250 255
- Val Ser Lys Ile Thr Lys Ser Gly Val Lys Val Ser Val Tyr Ala Val 260 265 270
- Pro Asp Lys Met Asn Gln Ala Asp Tyr Ala Leu Asp Ala Ala Val Thr 275 280 285
- Leu Leu Glu Phe Tyr Glu Asp Tyr Phe Ser Ile Pro Tyr Pro Leu Pro 290 295 300
- Lys Gln Asp Leu Ala Ala Ile Pro Asp Phe Gln Ser Gly Ala Met Glu 305 310 315 320
- Asn Trp Gly Leu Thr Thr Tyr Arg Glu Ser Ala Leu Leu Phe Asp Ala 325 330 335
- Glu Lys Ser Ser Ala Ser Ser Lys Leu Gly Ile Thr Met Thr Val Ala 340 345 350
- His Glu Leu Ala His Gln Trp Phe Gly Asn Leu Val Thr Met Glu Trp 355 360 365
- Trp Asn Asp Leu Trp Leu Asn Glu Gly Phe Ala Lys Phe Met Glu Phe 370 375 380
- Val Ser Val Ser Val Thr His Pro Glu Leu Lys ValGly Asp Tyr Phe 385 390 395 400
- Phe Gly Lys Cys Phe Asp Ala Met Glu Val Asp Ala Leu Asn Ser Ser 405 410 415
- His Pro Val Ser Thr Pro Val Glu Asn Pro AlaGln Ile Arg Glu Met 420 425 430

Phe Asp Asp Val Ser Tyr Asp Lys Gly Ala Cys Ile Leu Asn Met Leu 435 440 445 Arg Glu Tyr Leu Ser Ala Asp Ala Phe Lys Ser Gly Ile ValGln Tyr 455 Leu Gln Lys His Ser Tyr Lys Asn Thr Lys Asn Glu Asp Leu Trp Asp 475 Ser Met Ala Ser Ile Cys Pro Thr Asp Gly Val Lys Gly Met Asp Gly 490 Phe Cys Ser Arg Ser Gln His Ser Ser Ser Ser His Trp His Gln 500 505 Glu Gly Val Asp Val Lys Thr Met Met Asn Thr Trp Thr Leu Gln Arg 520 Gly Phe Pro Leu Ile Thr Ile Thr Val Arg Gly Arg Asn Val His Met 535 Lys Gln Glu His Tyr Met Lys Gly Ser Asp Gly Ala Pro Asp Thr Gly 550 555 Tyr Leu Trp His Val Pro Leu Thr Phe Ile Thr Ser Lys Ser Asp Met 565 570 Val His Arg Phe Leu Leu Lys Thr Lys Thr Asp Val Leu Ile Leu Pro Glu Glu Val Glu Trp Ile Lys Phe Asn Val Gly Met Asn Gly Tyr Tyr 600 Ile Val His Tyr Glu Asp Asp Gly Trp Asp Ser Leu Thr Gly Leu Leu Lys Gly Thr His Thr Ala Val Ser Ser Asn Asp Arg Ala Ser Leu Ile 630 635 Asn Asn Ala Phe Gln Leu Val Ser Ile Gly Lys Leu Ser Ile Glu Lys Ala Leu Asp Leu Ser Leu Tyr Leu Lys His Glu Thr Glu Ile Met Pro Val Phe Gln Gly Leu Asn Glu Leu Ile Pro Met Tyr Lys Leu Met Glu 680 Lys Arg Asp Met Asn Glu Val Glu Thr Gln Phe Lys Ala Phe Leu Ile Arg Leu Leu Arg Asp Leu Ile Asp Lys Gln Thr Trp Thr Asp Glu Gly 715 710 Ser Val Ser Glu Arg Met Leu Arg Ser Glu Leu Leu Leu Ala Cys 725 730

- Val His Asn Tyr Gln Pro Cys Val Gln Arg Ala Glu Gly Tyr Phe Arg 740 745 750
- Lys Trp Lys Glu Ser Asn Gly Asn Leu Ser Leu Pro Val Asp Val Thr 755 760 765
- Leu Ala Val Phe Ala Val Gly Ala Gln Ser Thr Glu Gly Trp Asp Phe 770 780
- Leu Tyr Ser Lys Tyr Gln Phe Ser Leu Ser Ser Thr Glu Lys Ser Gln 785 790 795 800
- Ile Glu Phe Ala Leu Cys Arg Thr Gln Asn Lys Glu Lys Leu Gln Trp 805 810 815
- Leu Leu Asp Glu Ser Phe Lys Gly Asp Lys Ile Lys Thr Gln Glu Phe 820 825 830
- Pro Gln Ile Leu Thr Leu Ile Gly Arg Asn Pro Val Gly Tyr Pro Leu 835 840 845
- Ala Trp Gln Phe Leu Arg Lys Asn Trp Asn Lys Leu Val Gln Lys Phe 850 855 860
- Glu Leu Gly Ser Ser Ser Ile Ala His Met Val Met Gly Thr Thr Asn 865 870 875
- Gln Phe Ser Thr Arg Thr Arg Leu GluGlu Val Lys Gly Phe Phe Ser 885 890 895
- Ser Leu Lys Glu Asn Gly Ser Gln Leu Arg Cys Val Gln Gln Thr Ile 900 905 910
- Glu Thr Ile Glu Glu Asn Ile Gly Trp MetAsp Lys Asn Phe Asp Lys 915 920 925
- Ile Arg Val Trp Leu Gln Ser Glu Lys Leu Glu Arg Met 930 935 940
- <210> 451
- <211> 316
- <212> PRT
- <213> Homo sapiens
- <400> 451
- Met Thr Gln Gly Lys Leu Ser Val Ala Asn Lys Ala Pro Gly Thr Glu

  1 5 10 15
- Gly Gln Gln Gln Val His Gly Glu Lys Lys Glu Ala Pro Ala Val Pro 20 25 30
- Ser Ala Pro Pro Ser Tyr Glu Glu Ala Thr Ser Gly Glu Gly Met Lys 35 40 45

- Ala Gly Ala Phe Pro Pro Ala Pro Thr Ala Val Pro Leu His Pro Ser 50 55 60
- Trp Ala Tyr Val Asp Pro Ser Ser Ser Ser Ser Tyr Asp Asn Gly Phe
  65 70 75 80
- Pro Thr Gly Asp His Glu Leu Phe Thr Thr Phe Ser Trp Asp Asp Gln \$85\$ 90 95
- Lys Val Arg Arg Val He Val Arg Lys Val Tyr Thr Ile Leu Leu Ile 100 105 110
- Gln Leu Leu Val Thr Leu Ala Val Val Ala Leu Phe Thr Phe Cys Asp \$115\$ \$120\$ \$125\$
- Pro Val Lys Asp Tyr Val Gln Ala Asn Pro Gly Trp Tyr Trp Ala Ser 130 135 140
- Tyr Ala Val Phe Phe Ala Thr Tyr Leu Thr Leu Ala Cys Cys Ser Gly 145 150 155 160
- Pro Arg Arg His Phe Pro Trp Asn Leu Ile &u Leu Thr Val Phe Thr 165 170 175
- Leu Ser Met Ala Tyr Leu Thr Gly Met Leu Ser Ser Tyr Tyr Asn Thr 180 185 190
- Thr Ser Val Leu Leu Cys Leu Gly Ile Thr Ala  $\alpha$  Val Cys Leu Ser 195 200 205
- Val Thr Val Phe Ser Phe Gln Thr Lys Phe Asp Phe Thr Ser Cys Gln 210 215 220
- Gly Val Leu Phe Val Leu Leu Met Thr Leu Phe Phe Ser Gly Leu Ile 225 230 235 240
- Leu Ala Ile Leu Leu Pro Phe Gln Tyr Val Pro Trp Leu His Ala Val \$245\$ 250 255
- Tyr Ala Ala Leu Gly Ala Gly Val Phe Thr Leu Phe Leu Ala Leu  $\mathfrak{A}\mathfrak{P}$  260 265 270
- Thr Gln Leu Leu Met Gly Asn Arg Arg His Ser Leu Ser Pro Glu Glu 275 280 285
- Tyr Ile Phe Gly Ala Leu Asn Ile Tyr Leu Asp Ile Ile Tyr Ile Phe 290 295 300
- Thr Phe Phe Leu Gln Leu Phe Gly Thr Asn Arg Glu 305 310 315

<sup>&</sup>lt;210> 452

<sup>&</sup>lt;211> 51

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Homo sapiens

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<400> 452
Met Ser His Ser Val Phe Ala His Tyr Ile Phe AsnIle Leu Leu Leu
                                     1.0
Leu Leu Leu Leu Leu Ile Gly Phe Leu Tyr Ser Met Pro Phe Ile
Tyr Lys Asp Thr Lys Lys Thr His Val Cys Asn Phe AsnAsn Ile Phe
                             40
Pro Ile Leu
     50
<210> 453
<211> 267
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (172)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (175)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 453
Met Ser Glu Ile Arg Gly Lys Pro Ile Glu Ser Ser Cys Met Tyr Gly
Thr Cys Cys Leu Trp Gly Lys Thr Tyr Ser Ile Gly Phe Leu Arg Phe
Cys Lys Gln Ala Thr Leu Gln Phe Cys Val Val Lys Pro Leu Met Ala
Val Ser Thr Val Val Leu Gln Ala Phe Gly Lys Tyr Arg Asp Gly Asp
Phe Asp Val Thr Ser Gly Tyr Leu Tyr Val Thr Ile Ile Tyr Asn Ile
Ser Val Ser Leu Ala Leu Tyr Ala Leu Phe Leu Ph Tyr Phe Ala Thr
                 8.5
Arg Glu Leu Leu Ser Pro Tyr Ser Pro Val Leu Lys Phe Phe Met Val
                                105
Lys Ser Val Ile Phe Leu Ser Phe Trp Gln Gly Met Le Leu Ala Ile
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115

Leu Glu Lys Cys Gly Ala Ile Pro Lys Ile His Ser Ala Arg Val Ser

130 135 140

Val Gly Glu Gly Thr Val Ala Ala Gly Tyr Gln Asp Phe Ile Ile Cys 145 150 155 160

Val Glu Met Phe Phe Ala Ala Leu Ala Leu Arg Xaa Ala Phe Xaa Tyr 165 170 175

Lys Val Tyr Ala Asp Lys Arg Leu Asp Ala Gln Gly Arg Cys Ala Pro 180 185 190

Met Lys Ser Ile Ser Ser Ser Leu Lys Glu Thr Met Asn Pro His Asp 195 200 205

Ile Val Gln Asp Ala Ile His Asn Phe Ser Pro Ala Tyr Gln Gln Tyr 210 215 220

Thr Gln Gln Ser Thr Leu Glu Pro Gly Pro Thr Trp Arg Gly Gly Ala 235 235 240

His Gly Leu Ser Arg Ser His Ser Leu Ser Gly Ala Arg Asp Asn Glu 245 250 255

Lys Thr Leu Leu Ser Ser Asp Asp Glu Phe 260 265

<210> 454

<211> 53

<212> PRT

<213> Homo sapiens

<400> 454

Met Leu Val Leu Met Thr Thr Cys Ile Leu Ala Ala Val Cys ValHis 1 5 10 15

Thr Ala Gln Cys Ala Pro Asp Ser Arg Met Asp Asn Asp Cys Pro Ser 20 25 30

His Gln Ala Gln Ile His Phe Arg Ala Ser Glu Val Arg Arg Gly Trp 35 40 45

Thr Phe Asn His Asp

<210> 455

<211> 87

<212> PRT

<213> Homo sapiens

<400> 455

Met Gly Leu His Leu Arg Pro Tyr Arg Val Gly Leu Leu Pro Asp Gly 1 5 10 15

Leu Leu Phe Leu Leu Leu Leu Met Leu Leu Ala Asp Pro Ala Leu 20 25 30

Asn Gln Leu Glu Ala Lys Leu Asp Lys Pro Thr Val Val His Tyr Leu 50 60

Cys Ser Lys Lys Thr Glu Ser Tyr Phe Thr Ile Trp Leu Asn Leu Glu 65 70 75 80

Leu Leu Pro Val His His 85

<210> 456

<211> 40

<212> PRT

<213> Homo sapiens

<400> 456

Met Gly Pro Ser Gln Arg Glu Val Thr Val Gln Trp His Arg Ala Leu  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Phe Leu Leu Pro Leu Leu Leu Ser Thr Arg Thr Glu Thr Lys Asn 20 25 30

Phe Gly Phe Lys Trp Leu Lys Asp

<210> 457

<211> 525

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (210)

<223> Xaa equals any of the naturally occurring bamino acids

<400> 457

Met Leu Ala Phe Pro Leu Leu Leu Thr Gly Leu Ile Ser Phe Arg Glu  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Lys Arg Leu Gln Asp Val Gly Thr Pro Ala Ala Arg Ala Arg Ala Phe 20 25 30

Phe Thr Ala Pro Val Val Val Phe His Leu Asn Ile Leu Ser Tyr Phe 35 40 45

Ala Phe Leu Cys Leu Phe Ala Tyr Val Leu Met Val Asp Phe Gln Pro  $50 \hspace{1cm} 60$ 

- Val Pro Ser Trp Cys Glu Cys Ala Ile Tyr Leu Trp Leu Phe Ser Leu 65 70 75 80
- Val Cys Glu Glu Met Arg Gln Leu Phe TyrAsp Pro Asp Glu Cys Gly 85 90 95
- Leu Met Lys Lys Ala Ala Leu Tyr Phe Ser Asp Phe Trp Asn Lys Leu 100 105 110
- Asp Val Gly Ala Ile Leu Leu Phe Val Ala GlyLeu Thr Cys Arg Leu 115 120 125
- Ile Pro Ala Thr Leu Tyr Pro Gly Arg Val Ile Leu Ser Leu Asp Phe 130 135 140
- Ile Leu Phe Cys Leu Arg Leu Met His Ile Phe Thr Ile Ser Lys Thr 145 150 155 160
- Leu Gly Pro Lys Ile Ile Ile Val Lys Arg Met Met Lys Asp Val Phe 165 170 175
- Phe Phe Leu Phe Leu Leu Ala Val Trp Val Val Ser Phe Gly ValAla 180 185 190
- Lys Gln Ala Ile Leu Ile His Asn Glu Arg Arg Val Asp Trp Leu Phe 195 200 205
- Arg Xaa Ala Val Tyr His Ser Tyr Leu Thr Ile Phe Gly Gln Ile Pro 210 215 220
- Gly Tyr Ile Asp Gly Val Asn Phe Asn Pro Glu His Cys Ser Pro Asn 225 230 235 240
- Gly Thr Asp Pro Tyr Lys Pro Lys Cys Pro Glu Ser Asp Ala Thr Gln 245 250 255
- Gln Arg Pro Ala Phe Pro Glu Trp Leu Thr Val Leu Leu Cys Leu 260 265 270
- Tyr Leu Leu Phe Thr Asn Ile Leu Leu Leu Asn Leu Leu Ile Ala Met 275 280 285
- Phe Asn Tyr Thr Phe Gln Gln Val Gln Glu His Thr Asp Gln Ile Trp 290 295 300
- Lys Phe Gln Arg His Asp Leu Ile Glu Glu Tyr His Gly Arg Pro Ala 305 310 315 320
- Ala Pro Pro Pro Phe Ile Leu Leu Ser His Leu Gln Leu Phe Ile Lys 325 330 335
- Arg Val Val Leu Lys Thr Pro Ala Lys Arg His Lys Gln Leu Lys Asn 340 345 350
- Lys Leu Glu Lys Asn Glu Glu Ala Ala Leu Leu Ser Trp Glu Ile Tyr 355 360 365

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Leu Lys Glu Asn Tyr Leu Gln Asn Arg Gln Phe Gln Gln Lys Gln Arg 370 380

Pro Glu Gln Lys Ile Glu Asp Ile Ser Asn Lys Val Asp Ala Met Val
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395

Asp Leu Leu Asp Leu Asp Pro Leu Lys Arg Ser Gly Ser Met Glu Gln

390

Arg Leu Ala Ser Leu Glu Glu Gln Val Ala Gln Thr Ala Arg Ala Leu 420 425 430

His Trp Ile Val Arg Thr Leu Arg Ala Ser Gly Phe Ser Ser Glu Ala 435 440 445

Asp Val Pro Thr Leu Ala Ser Gln Lys Ala Ala Glu Glu Pro Asp Ala 450 460

Glu Pro Gly Gly Arg Lys Lys Thr Glu Glu Pro Gly Asp Ser Tyr His 465 470 475 480

Val Asn Ala Arg His Leu Leu Tyr Pro Asn Cys Pro Val Thr Arg Phe \$485\$

Pro Val Pro Asn Glu Lys Val Pro Trp Glu Thr Glu Phe Leu Ile Tyr 500 505 510

Asp Pro Pro Phe Tyr Thr Ala Glu Arg Lys Asp Ala Ala 515 520 525

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<210> 458
<211> 484
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (322)
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<223> Xaa equals any of the naturally occurring Lamino acids

<220> <221> SITE <222> (345)

385

<223> Xaa equals any of the naturally occurring Lamino acids

<220> <221> SITE <222> (374)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 458

Met Val Ala Thr Val Cys Gly Leu Leu Val Phe Leu Ser Leu Gy Leu 1 5 10

Val Pro Pro Val Arg Cys Leu Phe Ala Leu Ser Val Pro Thr Leu Gly

20	25	30

- Met Glu Gln Gly Arg Arg Leu Leu Leu Ser Tyr Ser Thr Ala Thr Læ
  35 40 45

  Ala Ile Ala Val Val Pro Asn Val Leu Ala Asn Val Gly Ala Ala Gly
- Ala Ile Ala Val Val Pro Asn Val Leu Ala Asn Val Gly Ala Ala Gly 50 55 60
- Gln Val Leu Arg Cys Val Thr Glu Gly Ser Leu Glu Ser Leu Leu Asn 65 70 75 80
- Thr Thr His Gln Leu His Ala Ala Ser Arg Ala Leu Gly Pro Thr Gly 85 90 95
- Gln Ala Gly Ser Arg Gly Leu Thr Phe Glu Ala Gln Asp Asn Gly Ser 100 105 110
- Ala Phe Tyr Leu His Met Leu Thr Val Thr Gln Gln Val Leu Glu Asp 115 120 125
- Phe Ser Gly Leu Glu Ser Leu Ala Arg Ala Ala Ala Leu Gly Thr Gln 130 140
- Arg Val Val Thr Gly Leu Phe Met Leu Gly Leu Leu Val Glu Ser Ala 145 150 155 160
- Trp Tyr Leu His Cys Tyr Leu Thr Asp Leu Arg Phe Asp Asn Ile Tyr 165 170 175
- Leu Leu Ala Pro Pro Pro Thr Trp Leu Leu Gln Ala Ala Gln Leu Arg 195 200 205
- Leu Ser Gln Glu Glu Leu Leu Ser Cys Leu Leu Arg Leu Gly Leu Leu 210 215 220
- Ala Leu Leu Val Ala Thr Ala Val Ala Val Ala Thr Asp His Val 225 230 235 240
- Ala Phe Leu Leu Ala Gln Ala Thr Val Asp Trp Ala Gln Lys Leu Pro 245 250 255
- Thr Val Pro Ile Thr Leu Thr Val Lys Tyr Asp Val Ala Tyr Thr Val 260 265  $\mathbf{20}$
- Leu Gly Phe Ile Pro Phe Leu Phe Asn Gln Leu Ala Pro Glu Ser Pro 275 280 285
- Phe Leu Ser Val His Ser Ser Tyr Gln Trp Glu Leu Arg Leu Thr Ser 290 295 300
- Ala Arg Cys Pro Leu Leu Pro Ala Arg Arg Pro Arg Ala Ala Ala Pro 305 310 315 320
- Leu Xaa Ala Gly Gly Leu Gln Leu Leu Ala Gly Ser Thr Val Leu Leu

Glu Gly Tyr Ala Arg Arg Leu Arg Xaa Ala Ile Ala Ala Ser Phe Phe 340 345 350

- Thr Ala Gln Glu Ala Arg Arg Ile Arg His Leu His Ala Arg Leu Gln 355 360 365
- Arg Arg His Asp Arg Xæ Gln Gly Gln Gln Leu Pro Leu Gly Asp Pro 370 375 380
- Ser Cys Val Pro Thr Pro Arg Pro Ala Cys Lys Pro Pro Ala Trp Ile 385 390 395 400
- Ala Tyr Arg Leu Asp Ala Leu Arg Thr Glu Ser Ser Glu Gly Glu Gly 405 410 415
- Lys Glu Leu Trp Ser Cys Arg Asp Leu Ser Cys His Leu Gly Pro Val 420 425 430
- Pro Pro Cys Val Thr Leu Gly Lys Ser Leu His Leu Ser Glu Pro 435 440 445
- Arg Phe Leu His Leu His Asn Asp Ser Ile Phe Thr Ile Asp Val Thr 450 455 460
- Tyr Phe Pro Arg Arg Asp Val Val Arg Met Glu Gly Asn Th Gly His 465 470 475

Asp Arg Pro Gly

<210> 459

<211> 122

<212> PRT

<213> Homo sapiens

<400> 459

Met Ile Gly Gly Ile Thr Cys Ile Leu Ser Leu Ile Cys Ala Leu Ala 1 5 10 15

Leu Ala Tyr Leu Asp Gln Arg Ala Glu Arg Ile Leu His Lys Glu Gln
20 25 30

Gly Lys Thr Gly Glu Val Ile Lys Leu Thr Asp Val Lys Asp Phe Ser 35 40 45

Leu Pro Leu Trp Leu Ile Phe Ile Ile Cys Val Cys Tyr Tyr Val Ala 50 55 60

Val Phe Pro Phe Ile Gly Leu Gly Lys Val Phe Phe Thr Glu Lys Phe 65 70 75 80

Gly Phe Ser Ser Gln Ala Ala Ser Ala Ile Asn Ser Val Val Tyr Val 85 90 95

Ile Ser Ala Pro Met Ser Pro Val Phe Gly Leu Leu Val Asp Lys Thr 100 110 105 Gly Lys Asn Ile Ile Trp Val Leu Cys Ala 115 <210> 460 <211> 46 <212> PRT <213> Homo sapiens <400> 460 Met Pro Trp Leu Lys Ser Leu Leu His Phe Ser Leu Phe Leu Val Val Phe Ser Thr Leu Ala Val Lys Ser Leu Gly Val Pro Val Ala Ala Gly Ser Pro Phe Cys Ile Val Asp Val Leu His Phe Ile Leu Leu <210> 461 <211> 66 <212> PRT <213> Homo sapiens <400> 461 Met Ser Trp Val Ile Val Val Ile Ile Trp Gly Tyr Leu Leu Glu Gly His Gly Val Pro Phe Cys Lys Ser Tyr Gly Pp Ser Pro Trp Lys Leu His Thr His His Ala Ala Tyr Asn Ser Gly Ser Ser Gln Val Tyr Arg Ile Leu Glu Thr Leu Met Ser Gly Ser Thr His Cys Ser Ph Ser Gly Thr Phe 65 <210> 462 <211> 90 <212> PRT

<213> Homo sapiens

<400> 462

Met Pro Arg Ala Pro Trp Arg Ile Pro Leu Cys Ala Leu Pro Thr Leu

Cys Leu Gly Ser Pro Leu Pro Ser Gln Pro Thr His Pro Ile Phe Tyr 20 25 30

Asp His Arg Ala Pro Thr Trp Lys Met Ala His Pro Gly Gly Pro Arg  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Ser Ser His Ser Pro Arg Thr Trp Arg Thr Pro Ser Ser Gln Thr Lys 50 55 60

Ala Ala Leu Pro Ala Gly Gly Ala Arg Asn Ser Pro Leu Gln Leu Cys 65 70 75 80

Thr Arg Ser Arg Phe Cys Gly Thr Pro Met 85 90

<210> 463

<211> 710

<212> PRT

<213> Homo sapiens

<400> 463

Met Pro Val Pro Trp Phe Leu Leu Ser Leu Ala Leu Gly Arg Ser Pro 1 5 10 15

Val Val Leu Ser Leu Glu Arg Leu Val Gly Pro Gln Asp Ala Thr His
20 25 30

Cys Ser Pro Gly Leu Ser Cys Arg Leu Trp Asp Ser Asp Ile Leu Cys 35 40 45

Leu Pro Gly Asp Ile Val Pro Ala Pro Gly Pro Val Leu Ala Pro Thr 50 55 60

His Leu Gln Thr Glu Leu Val Leu Arg Cys Gln Lys Glu Thr Asp Cys 65 70 75 80

Asp Leu Cys Leu Arg Val Ala Val His Leu Ala Val His Gly His Trp 85 90 95

Glu Glu Pro Glu Asp Glu Glu Lys Phe Gly Gly Ala Ala Asp Leu Gly
100 105 110

Val Glu Glu Pro Arg Asn Ala Ser Leu Gln Ala Gln Val Val Leu Ser 115 120 125

Phe Gln Ala Tyr Pro Thr Ala Arg Cys Val Leu Leu Glu Val Gln Val 130 135 140

Pro Ala Ala Leu Val Gln Phe Gly Gln Ser Val Gly Ser Val Val Tyr 145 150 155 160

Asp Cys Phe Glu Ala Ala Leu Gly Ser Glu Val Arg Ile Trp Ser Tyr 165 170 175 Thr Gln Pro Arg Tyr Glu Lys Glu Leu Asn His Thr Gln Gln Leu Pro Asp Cys Arg Gly Leu Glu Val Trp Asn Ser Ile Pro Ser Cys Trp Ala Leu Pro Trp Leu Asn Val Ser Ala Asp Gly Asp Asn Val His Phe Gly 215 Leu Ser Leu Tyr Trp Asn Gln Val Gln Gly Pro Pro Lys Pro Arg Trp 230 235 His Lys Asn Leu Thr Gly Pro Gln 1e Ile Thr Leu Asn His Thr Asp 250 Leu Val Pro Cys Leu Cys Ile Gln Val Trp Pro Leu Glu Pro Asp Ser 265 Val Arg Thr Asn Ile Cys Pro Phe Arg Qu Asp Pro Arg Ala His Gln 280 Asn Leu Trp Gln Ala Ala Arg Leu Arg Leu Leu Thr Leu Gln Ser Trp Leu Leu Asp Ala Pro Cys Ser Leu Pro Ala Glu Ala Ala Leu 🛭 Trp 315 Arg Ala Pro Gly Gly Asp Pro Cys Gln Pro Leu Val Pro Pro Leu Ser 325 330 Trp Glu Asn Val Thr Val Asp Lys Val Leu Glu Phe Pro &u Leu Lys Gly His Pro Asn Leu Cys Val Gln Val Asn Ser Ser Glu Lys Leu Gln 360 Leu Gln Glu Cys Leu Trp Ala Asp Ser Leu Gly Pro Leu Lys Asp Asp 370 375 Val Leu Leu Glu Thr Arg Gly Pro Gln Asp Asn Arg Ser Leu Cys Ala Leu Glu Pro Ser Gly Cys Thr Ser Leu Pro Ser Lys Ala Ser Thr Arg Ala Arg Leu Gly Glu Tyr Leu Leu Gln Asp Leu Gln Ser Gly 425 Gln Cys Leu Gln Leu Trp Asp Asp Leu Gly Ala Leu Trp Ala Cys 440 Pro Met Asp Lys Tyr Ile His Lys Arg Trp Ala Leu Val Trp Leu Ala 450 Cys Leu Leu Phe Ala Ala Ala Leu Ser Leu Ile Leu Leu Lys Lys 470 475

- Asp His Ala Lys Gly Trp Leu Arg Leu Leu Lys Gln Asp Val Arg Ser 485 490 495
- Gly Ala Ala Arg Gly Arg Ala Ala Leu Leu Leu Tyr Ser Ala Asp 500 505 510
- Asp Ser Gly Phe Glu Arg Leu Val Gly Ala Leu Ala Ser Ala Leu Cys 515 520 525
- Gln Leu Pro Leu Arg Val Ala Val Asp Leu Trp Ser Arg Arg Glu Leu 530 540
- Ser Ala Gln Gly Pro Val Ala Trp Phe His Ala Gln Arg Arg Gln Thr 545 550 555 560
- Leu Gln Glu Gly Val Val Val Leu Leu Phe Ser Pro Gly Ala Val 565 570 575
- Ala Leu Cys Ser Glu Trp Leu Gln Asp Gly Val Ser Gly Pro Gly Ala 580 585 590
- His Gly Pro His Asp Ala Phe Arg Ala Ser Leu Ser Cys Val Leu Pro 595 600 605
- Asp Phe Leu Gln Gly Arg Ala Pro Gly Ser Tyr Val Gly Ala Cys Phe 610 615 620
- Asp Arg Leu Leu His Pro Asp Ala Val Pro Ala Leu Phe Arg Thr Val 625 630 635 635
- Pro Val Phe Thr Leu Pro Ser Gln Leu Pro Asp Phe Leu Gly Ala Leu 645 650 655
- Gln Gln Pro Arg Ala Pro Arg Ser Gly Arg Leu Gln Glu Arg Ala Glu 660 665 670
- Gln Val Ser Arg Ala Leu Gln Pro Ala Leu Asp Ser Tyr Phe His Pro 675 680 685
- Pro Gly Thr Pro Ala Pro Gly Arg Gly Val Gly Pro Gly Ala Gly Pro 690 700
- Gly Ala Gly Asp Gly Thr 705 710

<400> 464

Met Phe Ala Pro Cys Phe Val Asn Leu Ala Leu Phe Tyr Leu Tyr Ile 1 5 10 15

Asn Ser Cys Asn Leu Leu Asn Leu Thr Ser Ile Asp Pro Phe Gln Gln

<sup>&</sup>lt;210> 464

<sup>&</sup>lt;211> 48

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Homo sapiens

20 25 30

Lys Gly Lys Phe Lys Met Gln Thr Leu Leu Phe Ala Lys Glu Asp Ser 35 40 45

<210> 465

<211> 549

<212> PRT

<213> Homo sapiens

<400> 465

Met Trp Leu Pro Leu Val Leu Leu Leu Ala Val Leu Leu Leu Ala Val 1 5 10 15

Leu Cys Lys Val Tyr Leu Gly Leu Phe Ser Gly Ser Ser Pro Asn Pro
20 25 30

Phe Ser Glu Asp Val Lys Arg Pro Pro Ala Pro Leu Val Thr Asp Lys 35 40 45

Glu Ala Arg Lys Lys Val Leu Lys Gln Gly Ile His Tyr Ile Gly Arg 50 6

Met Glu Glu Gly Ser Ile Gly Arg Phe Ile Leu Asp Gln Ile Thr Glu 65 70 75 80

Gly Gln Leu Asp Trp Ala Pro Leu Ser Ser Pro Phe Asp Ile Met Val 85 90 95

Leu Glu Gly Pro Asn Gly Arg Lys Glu Tyr Pro Met Tyr Ser Gly Glu 100 105 110

Lys Ala Tyr Ile Gln Gly Leu Lys Glu Lys Phe Pro Gln Glu Glu Ala 115 120 125

Ile Ile Asp Lys Tyr Ile Lys Leu Val Lys Val Val Ser Ser Gly Ala 130 135 140

Pro His Ala Ile Leu Leu Lys Phe Leu Pro Leu Pro Val Val Gln Leu 145 150 155 160

Leu Asp Arg Cys Gly Leu Leu Thr Arg Phe Ser Pro Phe Leu Gln Ala 165 170 175

Ser Thr Gln Ser Leu Ala Glu Val Leu Gln Gln Leu Gly Ala Ser Ser 180 185 190

Glu Leu Gln Ala Val Leu Ser Tyr Ile Phe Pro Thr Tyr Gly Val Thr 195 200 205

Pro Asn His Ser Ala Phe Ser Met His Ala Leu Leu Val Asn His Tyr 210 215 220

- Met Lys Gly Gly Phe Tyr Pro Arg GlyGly Ser Ser Glu Ile Ala Phe 225 235 240
- His Thr Ile Pro Val Ile Gln Arg Ala Gly Gly Ala Val Leu Thr Lys 245 250 255
- Ala Thr Val Gln Ser Val Leu Leu Asp Ser Ala Gly Lys Ala Cys Gly 260 265 270
- Val Ser Val Lys Lys Gly His Glu Leu Val Asn Ile Tyr Cys Pro Ile 275 280 285
- Val Val Ser Asn Ala Gly Leu Phe Asn Thr TyrGlu His Leu Leu Pro 290 295 300
- Gly Asn Ala Arg Cys Leu Pro Gly Val Lys Gln Gln Leu Gly Thr Val 305 310 315 320
- Arg Pro Gly Leu Gly Met Thr Ser Val Phe Ile Cys LeuArg Gly Thr 325 330 335
- Lys Glu Asp Leu His Leu Pro Ser Thr Asn Tyr Tyr Val Tyr Tyr Asp 340 345 350
- Thr Asp Met Asp Gln Ala Met Glu Arg Tyr Val Ser Met ProArg Glu 355 360 365
- Glu Ala Ala Glu His Ile Pro Leu Leu Phe Phe Ala Phe Pro Ser Ala 370 375 380
- Lys Asp Pro Thr Trp Glu Asp Arg Phe Pro Gly Arg Ser Thr Met Ile
  385 390 395 400
- Met Leu Ile Pro Thr Ala Tyr Glu Trp Phe Glu Glu Trp Gln Ala Glu 405 410 415
- Leu Lys Gly Lys Arg Gly Ser Asp Tyr Glu Thr Phe Lys Asn Ser Phe 420 425 430
- Val Glu Ala Ser Met Ser Val Val Leu Lys Leu Phe Pro Gln Leu Glu 435 440 445
- Gly Lys Val Glu Ser Val Thr Ala Gly Ser Pro Leu Thr Asn Gln Phe 450 455 460
- Tyr Leu Ala Ala Pro Arg Gly Ala Cys Tyr Gly Ala Asp His Asp Leu 465 470 475 480
- Gly Arg Leu His Pro Cys Val Met Ala Ser Leu Arg Ala Gln Ser Pro 485 490 495
- Ile Pro Asn Leu Tyr Leu Thr Gly Gln Asp Ile Phe Thr Cys Gly Leu 500 505 510
- Val Gly Ala Leu Gln Gly Ala Leu Leu Cys Ser Ser Ala Ile Leu Lys 515 520 525

Arg Asn Leu Tyr Ser Asp Leu Lys Asn Leu Asp Ser Arg Ile Arg Ala 530 540

Gln Lys Lys Lys Asn 545

<210> 466

<211> 467

<212> PRT

<213> Homo sapiens

<400> 466

Met Leu Leu Leu Leu Leu Pro Leu Leu Trp Gly Arg Glu Arg Val 1 5 10 15

Glu Gly Gln Lys Ser Asn Arg Lys Asp Tyr Ser Leu Thr Met Gln Ser 20 25 30

Ser Val Thr Val Gln Glu Gly Met Cys Val His Val Arg Cys Ser Phe  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Ser Tyr Pro Val Asp Ser Gln Thr Asp Ser Asp Pro Val His Gly Tyr 50 55 60

Trp Phe Arg Ala Gly Asn Asp Ile Ser TrpLys Ala Pro Val Ala Thr 65 70 75 80

Asn Asn Pro Ala Trp Ala Val Gln Glu Glu Thr Arg Asp Arg Phe His 85 90 95

Leu Leu Gly Asp Pro Gln Thr Lys AsnCys Thr Leu Ser Ile Arg Asp 100 105 110

Ala Arg Met Ser Asp Ala Gly Arg Tyr Phe Phe Arg Met Glu Lys Gly 115 120 125

Asn Ile Lys Trp Asn Tyr Lys Tyr Asp Gln Leu SerVal Asn Val Thr 130 135 140

Ala Leu Thr His Arg Pro Asn Ile Leu Ile Pro Gly Thr Leu Glu Ser

Gly Cys Phe Gln Asn Leu Thr Cys Ser Val Pro Trp Ala CysGlu Gln
165 170 175

Gly Thr Pro Pro Met Ile Ser Trp Met Gly Thr Ser Val Ser Pro Leu 180 185 190

His Pro Ser Thr Thr Arg Ser Ser Val Leu Thr Leu Ile Pro GlnPro 195 200 205

Gln His His Gly Thr Ser Leu Thr Cys Gln Val Thr Leu Pro Gly Ala 210 215 220 Gly Val Thr Thr Asn Arg Thr Ile Gln Leu Asn Val Ser Tyr Pro Pro 225 230 235 240

Gln Asn Leu Thr Val Thr Val Phe Gln Gly Glu Gly Thr Ala Ser Thr

Gln Asn Leu Thr Val Thr Val Phe Gln Gly Glu Gly Thr Ala Ser Thr 245 250 255

Ala Leu Gly Asn Ser Ser Ser Leu Ser Val Leu Glu Gly Gln Ser Leu 260 265 270

Arg Leu Val Cys Ala Val Asp Ser Asn Pro Pro Ala Arg Leu Ser Trp \$275\$ \$280\$ \$285\$

Thr Trp Arg Ser Leu Thr Leu Tyr Pro Ser Gln Pro Ser Asn Pro Leu 290 295 300

Val Leu Glu Leu Gln Val His Leu Gly Asp Glu Gly Glu Phe Thr Cys 305 310 315 320

Arg Ala Gln Asn Ser Leu Gly Ser Gln His Val Ser Leu Asn Leu Ser 325 330 335

Leu Gln Gln Glu Tyr Thr Gly Lys Met Arg Pro Val Ser Gly Val Leu 340 345 350

Leu Gly Ala Val Gly Gly Ala Gly Ala Thr Ala Leu Val Phe Leu Ser 355 360 365

Phe Cys Val Ile Phe Ile Val Val Arg Ser Cys Arg Lys Lys Ser Ala 370 375 380

Arg Pro Ala Ala Asp Val Gly Asp Ile Gly Met Lys Asp Ala Asn Thr 385 390 395 400

Ile Arg Gly Ser Ala Ser Gln Gly Asn Leu Thr Glu Ser Trp Ala Asp \$405\$

Asp Asn Pro Arg His His Gly Leu Ala Ala His Ser Ser Gly Glu Glu 420 425 430

Arg Glu Ile Gln Tyr Ala Pro Leu Ser Phe His Lys Gly Glu Pro Gln 435  $\phantom{0}440$   $\phantom{0}445$ 

Asp Leu Ser Gly Gln Glu Ala Thr Asn Asn Glu Tyr Ser Glu Ile Lys 450 455 460

Ile Pro Lys 465

<210> 467

<211> 325

<212> PRT

<213> Homo sapiens

<400> 467

Met Gly Ser Gln Val Ser Ser Met Leu Lys Leu Ala Leu Gln Asn Cys

- Cys Pro Gln Leu Trp Gln Arg His Ser Ala Arg Asp  ${\tt A}{\tt B}{\tt G}$  Gln Cys Ala 20 25 30
- Arg Val Leu Ala Asp Glu Arg Ser Pro Gln Pro Gly Ala Ser Pro Gln 35 40 45
- Glu Asp Ile Ala Asn Phe Gln Val Leu Val Lys Ile Leu Pro Val **M**t 50 60
- Val Thr Leu Val Pro Tyr Trp Met Val Tyr Phe Gln Met Gln Ser Thr 65 70 75 80
- Tyr Val Leu Gln Gly Leu His Leu His Ile Pro Asn Ile Phe Pro Ala 85 90 95
- Thr Ile Pro Glu Ala Trp Leu Leu Leu Ala Asn Val Val Val Leu 115 120 125
- Ile Leu Val Pro Leu Lys Asp Arg Leu Ile Asp Pro Leu Leu Leu Arg 130 135 140
- Cys Lys Leu Leu Pro Ser Ala Leu Gl<br/>n Lys Met Ala Leu Gly Met Phe 145  $\phantom{\bigg|}150\phantom{\bigg|}155\phantom{\bigg|}160\phantom{\bigg|}$
- Phe Gly Phe Thr Ser Val Ile Val Ala Gly Val Leu Glu Met Glu Arg 165 170 175
- Leu His Tyr Ile His His Asn Glu Thr Val Ser Gln Gln Ile Gly Glu 180 185 190
- Val Leu Tyr Asn Ala Ala Pro Leu Ser Ile Trp Trp Gln Ile Pro Gln 195 200 205
- Tyr Leu Leu Ile Gly Ile Ser Glu Ile Phe Ala Ser Ile Pro Gly Leu 210 215 220
- Glu Phe Ala Tyr Ser Glu Ala Pro Arg Ser Met Gln Gly Ala Ile Met 225 230 235 240
- Leu Val Ala Leu Leu Ser Leu Pro Gly Gly Trp Leu His Cys Pro Lys 260 265 270
- Asp Phe Gly Asn Ile Asn Asn Cys Arg Met Asp Leu Tyr Phe Phe Leu 275 280 285
- Leu Ala Gly Ile Gln Ala Val Thr Ala Leu Leu Phe Val Trp Ile Ala 290 295 300
- Gly Arg Tyr Glu Arg Ala Ser Gln Gly Pro Ala Ser His Ser Arg Phe

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305 310 315 320
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Ser Arg Asp Arg Gly 325

<210> 468

<211> 98

<212> PRT

<213> Homo sapiens

<400> 468

Met His Cys Cys Gln Leu Pro Trp Arg Cys Ala Gln Ala Pro Gln Glu 1 5 10 15

Ala Phe Leu Cys Leu Leu Phe Leu Ile Leu Val Leu Val Leu Leu 20 25 30

Gly Cys Ser Arg Gly Leu Pro Gly His Thr Pro Trp Arg Leu His Pro 35 40 45

Ala Ala Ala Leu Leu Ala Pro Leu Leu His Asp Ala Leu Gly Ala 50 60

Cys Gly Phe Gln Gly Pro Glu Tyr Leu Leu Pro Cys Leu Leu Pro Leu 65 70 75 80

Pro Lys Pro Gly Gln Leu Gln Gly Pro<br/>Trp Gly Pro Leu Trp Ala Leu 85 90 95

Leu Pro

<210> 469

<211> 608

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (265)

<223> Xaa equals any of the naturally occurring Famino acids

<220>

<221> SITE

<222> (597)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 469

Met Val Gly Thr Lys Leu Arg Gln Thr Lys Asp Ala Leu Phe Thr Ile  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Leu His Asp Leu Arg Pro Gln Asp Arg Phe Ser Ile Ile Gly Phe Ser 20 25 30

- Asn Arg Ile Lys Val Trp Lys Asp His Leu Ile Ser Val Thr Pro Asp 35 40 45
- Ser Ile Arg Asp Gly Lys Val Tyr Ile His His Met Ser Pro Thr Gly 50 60
- Gly Thr Asp Ile Asn Gly Val Leu Gln Arg Ala Ile Arg Leu Leu Asn 65 70 75 80
- Lys Tyr Val Ala His Ser Gly Ile Gy Asp Arg Ser Val Ser Leu Ile 85 90 95
- Val Phe Leu Thr Asp Gly Lys Pro Thr Val Gly Glu Thr His Thr Leu 100 105 110
- Lys Ile Leu Asn Asn Thr Arg Glu Ala Aa Arg Gly Gln Val Cys Ile 115 120 125
- Phe Thr Ile Gly Ile Gly Asn Asp Val Asp Phe Arg Leu Leu Glu Lys 130 135 140
- Leu Ser Leu Glu Asn Cys Gly Leu Thr Arg Arg Val His Glu ©u Glu 145 150 155 160
- Asp Ala Gly Ser Gln Leu Ile Gly Phe Tyr Asp Glu Ile Arg Thr Pro 165 170 175
- Leu Leu Ser Asp Ile Arg Ile Asp Tyr Pro Pro Ser Ser ¥1 Val Gln
  180 185 190
- Ala Thr Lys Thr Leu Phe Pro Asn Tyr Phe Asn Gly Ser Glu Ile Ile 195 200 205
- Ile Ala Gly Lys Leu Val Asp Arg Lys Leu Asp His Leu His Val Glu 210 215 220
- Val Thr Ala Ser Asn Ser Lys Lys Phe Ile Ile Leu Lys Thr Asp Val 225 230 235 240
- Pro Val Arg Pro Gln Lys Ala Gly Lys Asp Val Thr Gly Ser Pro Arg 245 250 255
- Pro Gly Gly Asp Gly Glu Gly Asp Xaa Asn His Ile Glu Arg Leu Trp 260 260 270
- Ser Tyr Leu Thr Thr Lys Glu Leu Leu Ser Ser Trp Leu Gln Ser Asp 275 280 285
- Asp Glu Pro Glu Lys Glu Arg Leu Arg Gln Arg Ala Gln Ala Leu Ala 290 295 300
- Val Ser Tyr Arg Phe Leu Thr Pro Phe Thr Ser Met Lys Leu Arg Gly 305 310 315 320
- Pro Val Pro Arg Met Asp Gly Leu Glu Glu Ala His Gly Met Ser Ala 325 330 335

Ala Met Gly Pro Glu Pro Val Val Gln Ser Val Arg Gly Ala Gly Thr Gln Pro Gly Pro Leu Leu Lys Lys Pro Tyr Gln Pro Arg Ile Lys Ile Ser Lys Thr Ser Val Asp Gly Asp Pro His Phe Val Val Asp Phe Pro 375 Leu Ser Arg Leu Thr Val Cys Phe Asn Ile Asp Gly Gln Pro Gly Asp 390 395 Ile Leu Arg Leu Val Ser Asp His Arg Asp Ser Gly Val Thr Val Asn Gly Glu Leu Ile Gly Ala Pro Ala Pro Pro Asn Gly His Lys Lys Gln Arg Thr Tyr Leu Arg Thr Ile Thr Ile Leu Ile Asn Lys Pro Glu Arg 440 Ser Tyr Leu Glu Ile Thr Pro Ser Arg Val Ile Leu Asp Gly Gly Asp 455 Arg Leu Val Leu Pro Cys Asn Gln Ser Val Val Val Gly Ser Trp Gly Leu Glu Val Ser Val Ser Ala Asn Ala Asn Val Thr Val Thr Ile Gln 485 490 Gly Ser Ile Ala Phe Val Ile Leu Ile His Leu Tyr Lys Lys Pro Ala 505 510 Pro Phe Gln Arg His His Leu Gly Phe Tyr Ile Ala Asn Ser Glu Gly Leu Ser Ser Asn Cys His Gly Leu Leu Gly Gln Phe Leu Asn Gln Asp 535 Ala Arg Leu Thr Glu Asp Pro Ala Gly Pro Ser Gln Asn Leu Thr His 545 555 Pro Leu Leu Gln Val Gly Glu Gly Pro Glu Ala Val Leu Thr Val 565 570 Lys Gly His Gln Val Pro Val Val Trp Lys Gln Arg Lys Ile Tyr Asn 580 Gly Glu Glu Gln Xaa Asp Cys Trp Phe Ala Arg Asn Met Pro Pro Asn 595 600 605

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<210> 470
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<211> 56

<212> PRT

<213> Homo sapiens

<400> 470

Met Phe Tyr Lys Leu Thr Leu Ile Leu Cys Glu Leu Ser Val Ala Gly
1 5 10 15

Val Thr Gln Ala Ala Ser Gln Arg Pro Leu Gln Arg Leu Pro Arg His 20 25 30

Ile Cys Ser Gln Arg Ser Ser Ser Trp Glu Met Pro Pro Gln Gly Pro 35 40 45

Ala Pro Asp His Val Gly Arg Ala 50 55

<210> 471

<211> 540

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 471

Met Val Arg Thr Asp Gly His Thr Leu Ser Glu Lys Arg Asn Tyr Gln  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Val Thr Asn Ser Met Phe Gly Ala Ser Arg Lys Lys Phe Val Glu Gly 25 30

Val Asp Ser Asp Tyr His Asp Glu Asn Met Tyr Tyr Ser Gln Ser Ser 35 40 45

Met Phe Pro His Arg Ser Glu Lys Asp Met Leu Ala Ser Pro Ser Thr 50 55 60

Ser Gly Gln Leu Ser Gln Phe Gly Ala Ser Leu Tyr Gly Gln Gln Ser 65 70 75 80

Ala Leu Gly Leu Pro Met Arg Gly Met Ser Asn Asn Thr Pro Gln Leu 85 90 95

Asn Arg Ser Leu Ser Gln Gly Thr Gln Leu Pro Ser His Val Thr Pro 100 105 110

Thr Thr Gly Val Pro Thr Met Ser Leu His Thr Pro Pro Ser Pro Ser 115 120 125

Arg Gly Ile Leu Pro Met Asn Pro Xaa Asn Met Met Asn His Ser Gln 130 135 140

Val Gly Gln Gly Ile Gly Ile Pro Ser Arg Thr Asn Ser Met Ser Ser 145 150 155 Ser Gly Leu Gly Ser Pro Asn Arg Ser Ser Pro Ser Ile Ile Cys Met 170 Pro Lys Gln Gln Pro Ser Arg Gln Pro Phe Thr Val Asn Ser Met Ser Gly Phe Gly Met Asn Arg Asn Gln Ala Phe Gly Met Asn Asn Ser Leu 200 Ser Ser Asn Ile Phe Asn Gly Thr Asp Gly Ser Glu Am Val Thr Gly Leu Asp Leu Ser Asp Phe Pro Ala Leu Ala Asp Arg Asn Arg Glu 230 235 Gly Ser Gly Asn Pro Thr Pro Leu Ile Asn Pro Leu Ala Gly Ag Ala 250 Pro Tyr Val Gly Met Val Thr Lys Pro Ala Asn Glu Gln Ser Gln Asp 265 Phe Ser Ile His Asn Glu Asp Phe Pro Ala Leu Pro Gly Ser Ser Try Lys Asp Pro Thr Ser Ser Asn Asp Asp Ser Lys Ser Asn Leu Asn Thr 290 295 300 Ser Gly Lys Thr Thr Ser Ser Thr Asp Gly Pro Lys Phe Pro Gly Asp 310 Lys Ser Ser Thr Thr Gln Asn Asn Gln Gln Lys Lys Gly Ile Gln 330 Val Leu Pro Asp Gly Arg Val Thr Asn Ile Pro Gln Gly Met Val Thr 345 Asp Gln Phe Gly Met Ile Gly Leu Leu Thr Phe Ile Arg Ala Ala Glu 360 Thr Asp Pro Gly Met Val His Leu Ala Leu Gly Ser Asp Leu Thr Thr 37.5 Leu Gly Leu Asn Leu Asn Ser Pro Glu Asn Leu Tyr Pro Lys Phe Ala Ser Pro Trp Ala Ser Ser Pro Cys Arg Pro Gln Asp Ile Asp Phe His 410 Val Pro Ser Glu Tyr Leu Thr Asn Ile His Ile Arg Asp Lys Leu Ala Ala Ile Lys Leu Gly Arg Tyr Gly Glu Asp Leu Leu Phe Tyr Leu Tyr

440

435

Tyr Met Asn Gly Gly Asp Val Leu Gln Leu Leu Ala Ala Val Glu Leu 450 460

Phe Asn Arg Asp Trp Arg Tyr His Lys Glu Glu Arg Val Trp Ile Thr 465 470 475 480

Arg Ala Pro Gly Met Glu Pro Thr Met Lys Thr Asn Thr Tyr Glu Arg 485 490 495

Gly Thr Tyr Phe Phe Asp Cys Leu Asn Trp Arg Lys Val Ala Lys 500  $\phantom{0}505$   $\phantom{0}50$ 

Glu Phe His Leu Glu Tyr Asp Lys Leu Glu Glu Arg Pro His Leu Pro 515 520 525

Ser Thr Phe Asn Tyr Asn Pro Ala Gln Gln Ala Phe 530 540

<210> 472

<211> 99

<212> PRT

<213> Homo sapiens

<400> 472

Met Leu Phe Phe Leu Ser Leu Phe Leu Ser Leu Leu Leu Thr Leu Ser  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Leu Pro Ser Phe Leu Pro Phe Ser Phe Phe Phe Ser Leu Phe Pro 20 25 30

His Leu Ser Ala Cys Leu Leu Pro Ser Leu Pro Ser Pro Pro Phe Pro 35 40 45

Leu Pro Pro Ser Leu Pro Ser Phe Leu Pro Ser Phe Leu Pro Ser Phe 50 55 60

Leu Pro Ser Leu Leu Ser Pro Ser Phe Pro Ala Phe Pro Ser Phe
65 70 75 80

Cys Gln Leu Ala Arg Arg Ser Pro Arg Lys Ser Thr Gln Met Leu Gln
85 90 95

Ser Thr Ser

<210> 473

<211> 66

<212> PRT

<213> Homo sapiens

<400> 473

Met Asn Tyr Ile Phe Leu Leu Met Ala Leu Pro His Leu Ile Ala Ile

1 5 10 15

Ala Leu Thr Trp Gly Arg Tyr Ser Phe Ser Cys Leu Ala Asn Lys Glu 20 25 30

Thr Glu Phe Gln Arg Cys Gln Val Thr Cys Leu Leu His Thr Leu Gly 35 40 45

Val Leu Met Phe Asn Phe Glu Leu Arg Ser Ile Trp Leu Glu Ser Ser 50 55 60

Leu His 65

<210> 474

<211> 72

<212> PRT

<213> Homo sapiens

<400> 474

Met Arg His Thr Cys Ile Val Asn Ile Ala Ala Ser Leu Leu Val Ala 1 5 10 15

Asn Thr Trp Phe Ile Val Val Ala Ala Ile Gln Asp Asn Arg Tyr Ile
20 25 30

Leu Cys Lys Thr Ala Cys Val Ala Ala Thr Phe Phe Ile His Phe Phe 35 40 45

Tyr Leu Ser Val Phe Phe Trp Met Leu Thr Leu Gly Pro His Ala Val 50 55 60

Leu Ser Pro Gly Phe His Ser Ala

<210> 475

<211> 41

<212> PRT

<213> Homo sapiens

<400> 475

Met Leu Gln Arg Gly Gln His Leu Tyr Leu Val Val Phe Leu Met Val 1 5 10 15

Ser Phe Ile Pro Leu Leu Asn Pro Lys Gln Asp Leu Lys Lys Leu Lys 20 25 30

Lys Asn Arg Thr Val Arg Asn His Phe 35 40

<210> 476

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<211> 41
<212> PRT
<213> Homo sapiens
<400> 476
Met Pro Pro Lys Gln Ile Pro Leu Thr Ser Leu Ser Leu Leu Ala Leu
Leu Leu Phe Phe Phe Lys Ile Phe Cys Leu Leu Phe Leu Phe Tyr
                                 25
Pro Leu Pro Asp Glu Ser Glu His Phe
<210> 477
<211> 355
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (331)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (338)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (345)
<223> Xaa equals any of the naturally occurring Lamino acids
Met Ala Gln Leu Glu Gly Tyr Tyr Phe Ser Ala Ala Leu Ser Cys Thr
Phe Leu Val Ser Cys Leu Leu Phe Ser Ala Phe Ser Arg Aa Leu Arg
Glu Pro Tyr Met Asp Glu Ile Phe His Leu Pro Gln Ala Gln Arg Tyr
                             40
Cys Glu Gly His Phe Ser Leu Ser Gln Trp Asp Pro Met Ile Thr Thr
Leu Pro Gly Leu Tyr Leu Val Ser Ile Gly Val Ile Lys Pro Ala Ile
Trp Ile Phe Gly Trp Ser Glu His Val Val Cys Ser Ile Gly Met Leu
```

Arg Phe Val Asn Leu Leu Phe Ser Val Gly Asn Phe Tyr Leu Leu Tyr 100 105 110

Leu Leu Phe Cys Lys Val Gln Pro Arg Asn Lys Ala Ala Ser Ser Ile 115 120 125

Gln Arg Val Leu Ser Thr Leu Thr Leu Ala Val Phe Pro Thr Leu Tyr 130 135 140

Phe Phe Asn Phe Leu Tyr Tyr Thr Glu Ala Gly Ser Met Phe Phe Thr 145 150 160

Leu Phe Ala Tyr Leu Met Cys Leu Tyr Gly Asn His Lys Thr Ser Ala 165 170 175

Phe Leu Gly Phe Cys Gly Phe Met Phe Arg Gln Thr Asn Ile Ile Trp 180 185 190

Ala Val Phe Cys Ala Gly Asn Val Ile Ala Gln Lys Leu Thr Glu Ala 195 200 205

Trp Lys Thr Glu Leu Gln Lys Lys Glu Asp Arg Leu Pro Pro Ile Lys 210 220

Gly Pro Phe Ala Glu Phe Arg Lys Ile Leu Gln Phe Leu Leu Ala Tyr 225 230 235 240

Ser Met Ser Phe Lys Asn Leu Ser Met Leu Leu Leu Leu Thr Trp Pro 245 250 255

Tyr Ile Leu Leu Gly Phe Leu Phe Cys Ala Phe Val Val Val Asn Gly 260 265 270

Gly Ile Val Ile Gly Asp Arg Ser Ser His Glu Ala Cys Leu His Phe 275 280 285

Pro Gln Leu Phe Tyr Phe Phe Ser Phe Thr Leu Phe Phe Ser Phe Pro 290 295 300

His Leu Leu Ser Pro Ser Lys Ile Lys Thr Phe Pro Phe Leu Ser Leu 305 310 315 320

Gly Asn Val Glu Phe Cys Phe Leu Val Val Xaa Leu Val Leu Cys Gly 325 330 335

Phe Xaa Val Trp Glu Ile Pro Ile Xaa Gly Ser Arg Asn Thr Cys Leu 340 345 350

Ala Asp Gln 355

<210> 478

<211> 46

<212> PRT

<213> Homo sapiens

<400> 478

Met Gly Arg Gln Ala Leu Leu Leu Leu Ala Leu Cys Ala Thr Gly Ala 1 5 10 15

Gln Gly Leu Tyr Phe His Ile Gly Glu ThrGlu Lys Arg Cys Phe Ile 20 25 30

Glu Glu Ile Pro Asp Glu Thr Met Val Ile Gly Gln Ala Gly 35 40 45

<210> 479

<211> 47

<212> PRT

<213> Homo sapiens

<400> 479

Met Leu Ile Ser Val Asp Ser Asn Val Pro Val Val Phe Leu Leu Leu  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Phe Ile Leu Val Ile Leu Cys His Met Glu Cys Lys Gly His Ile Tyr 20 25 30

Ile Cys Val Cys Val Cys Val Tyr Met Tyr Ile Phe Lys Asn Ile 35 40 45

<210> 480

<211> 121

<212> PRT

<213> Homo sapiens

<400> 480

Met His Arg Ser Glu Pro Phe Leu Lys Met Ser Leu Leu Ile Leu Læ 1 5 10

Phe Leu Gly Leu Ala Glu Ala Cys Thr Pro Arg Glu Val Asn Leu Leu 20 25 30

Lys Gly Ile Ile Gly Leu Met Ser Arg Leu Ser Pro Asp Glu Ile Leu 35 40 45

Gly Leu Leu Ser Leu Gln Val Leu His Glu Glu Thr Ser Gly Cys Lys 50 55 60

Glu Glu Val Lys Pro Phe Ser Gly Thr Thr Pro Ser Arg Lys Pro Leu
65 70 75 80

Pro Lys Arg Lys Asn Thr Trp Asn Phe Leu Lys Cys Ala Tyr Met Val $85 \hspace{1.5cm} 90 \hspace{1.5cm} 95$ 

Met Thr Tyr Leu Phe Val Ser Tyr Asn Lys Gly Asp Trp Phe Thr Phe 100 105 110

Ser Ser Gln Val Leu Leu Pro Leu Leu 115 120

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<210> 481
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<212> PRT

<213> Homo sapiens

<400> 481

Met Thr Ala Trp Ile Leu Leu Pro Val Ser Leu Ser Ala Phe Ser Ile 1 5 10 15

Thr Gly Ile Trp Thr Val Tyr Ala Met Ala Val Met Asn His His Val 20 25 30

Cys Pro Val Glu Asn Trp Ser Tyr Asn Glu Ser Cys Pro Pro Asp Pro 35 40 45

Ala Glu Gln Gly Gly Pro Lys Thr Cys Cys Thr Leu Asp Asp Val Pro 50 60

Leu Ile Ser Gly Pro Asp Leu Pro Pro Ala Leu Arg Ala Ala Pro Gly 65 70 75 80

Ala Glu Ser Ala Leu Leu Gly 85

<210> 482

<211> 116

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (46)

<223> Xaa equals any of the naturally occurring bamino acids

<400> 482

Met Pro Gly Gly Thr Arg Cys Arg Val Leu Leu Leu Ser Leu Thr Phe 1 5 10

Gly Thr Ser Met Ala Cys Gly Asn Val Gly Leu Arg Leu Cys Pro Trp  $20 \\ 25 \\ 30$ 

Thr Trp His Asn Trp Leu Leu Pro Pro His Leu Cys Ser Xaa Trp Pro 35 40 45

Cys Arg Arg Cys Cys Trp Ala Ala Ala Thr Thr His Phe Ser Trp Pro 50 60

Pro Trp Val Arg Ser Ala Trp Gly Pro Pro Ala Ala Trp Leu Glu Ser
65 70 75 80

Ser Gly His Pro Leu Pro Ala Val Ala Ser Cys Ser Gln Pro Pro Ala 85 90 95

<sup>&</sup>lt;211> 87

100 105 110 Gly Trp Thr Arg 115 <210> 483 <211> 86 <212> PRT <213> Homo sapiens <400> 483 Met Pro Trp His Val Cys Phe Phe Leu Ser Gly Leu LeuPhe Pro Ser Pro Gln Thr Ser Leu Gln His Leu Cys Leu Leu Thr Ser Leu Ile Leu Gly Val Thr Ile Ser Ala Tyr Glu His Ala Ile Asn Leu ProSer Leu Gln Asn Ser Leu Leu Thr Ser His Pro Ser Val Ala Ala Leu Ser Leu 50 Leu Ser Ser Ser Leu Gln Gln Asn Ser Leu Lys Glu Leu Leu Ala Gly His Ser Gly Ser Leu Leu 85 <210> 484 <211> 10 <212> PRT <213> Homo sapiens <400> 484 Gly Leu Leu Tyr Ile Met Tyr Cys Asn Ile 1 5 <210> 485 <211> 45 <212> PRT <213> Homo sapiens <400> 485 Met Val Lys Trp Ile Ile Leu Ser Cys Leu Ile Leu Lys Gly Lys Arg 10

Ser Ala Asp Ser Ser Arg Phe Ser Lys Val Pro Cys Cys Arg Arg Arg

Thr Leu Asn Ser Ser Thr Phe Tyr Ala Ala Asn Lys Ser SerThr Ile 20 25 30

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Asn Arg Asn Leu Ser Trp Gln Ala Leu Pro Phe Thr His
<210> 486
<211> 38
<212> PRT
<213> Homo sapiens
<400> 486
Met Leu Lys Leu Ala Thr Ile Leu Leu Thr Leu Leu Leu Lys Asn Leu
                            10
Asp Ala Gly Leu Thr Asp Lys Leu Ser Arg Ser Asn Phe Ile Thr Asp
Phe Ile Leu Thr Lys Tyr
        35
<210> 487
<211> 43
<212> PRT
<213> Homo sapiens
<400> 487
Met Phe Asn Leu Ser Phe Phe Thr Leu Tyr Gly Leu Cys Met Leu Lys
Leu His Ser Ala Ser Ser Trp Phe Thr Leu Leu Leu Ile Ser Leu
                                25
Phe Leu Ser Val Val Tyr Cys Gln Ser Thr Asn
         35
                             40
<210> 488
<211> 44
<212> PRT
<213> Homo sapiens
<400> 488
Met Pro Cys His Gly Leu Leu Ala Gln Gly Leu Ser Leu Ala Pro Leu
Pro Pro Trp Ala Leu Cys Cys Val Gly Val Ser Arg Ala Leu Gln Asp
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Ile Gln Gln His Pro Arg Pro Pro Ala Pro Cys Gln

4.0

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<210> 489
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<211> 53

<212> PRT

<213> Homo sapiens

<400> 489

Met Ala Ala Leu Leu Ala Gly Ile Cys Ile Leu Leu Asn Gly Val 1 5 10 15

Ile Pro Gln Asp Gln Ser Ile Val Arg Thr Ser Leu Ala Val Leu Gly 20 25 30

Lys Gly Cys Leu Ala Ala Ser Phe Asn Cys Ile Phe Leu Tyr Thr Gly  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Asn Cys Ile Pro Gln 50

<210> 490

<211> 34

<212> PRT

<213> Homo sapiens

<400> 490

Met Gln Ala Arg Trp Phe His Ile Leu Gly Met Met Met Phe Ile Trp  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Ser Ser Ala His Gln Tyr Lys Gys Pro Cys Tyr Ser Arg Gln Ser Gln 20 25 30

Glu Lys

<210> 491

<211> 68

<212> PRT

<213> Homo sapiens

<400> 491

Met Val His Asn Cys Leu Leu Leu Leu Lys Phe Leu Leu Leu Phe Cys  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Phe Pro Leu Ile Ser Tyr Gln Leu Met Asn Gly Ser Leu Gln Ser Leu 20 25 30

Gln Arg Leu Arg Met Ile Gln Asn Val Gln Cys Ile Val Leu Asn Lys  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Gln Glu Ala Glu Phe Leu Met Gly Ile Ser Phe Gln Ile Tyr Asp Trp  $50 \hspace{1cm} 55 \hspace{1cm} 60$ 

Ser Leu Gly Phe

<210> 492

<211> 162

<212> PRT

<213> Homo sapiens

<400> 492

Met Thr Ser Asn Phe Pro Phe Cys Thr Leu Ile Leu Gly Ile Ala Gln 1 5 10 15

Ala Gln Ala Cys Pro Gly Cys Pro Gly Asp Trp Pro Gly Leu Gly Ser 20 25 30

Gly Val Gly Glu Gly Leu His His Ile Arg Thr Cys Arg Thr Pro Ile  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Pro Cys Ser Pro Pro Ala Pro Ala Ala Ala Cys Leu Gly Ser Gly His 50 55 60

Ala Arg Leu Pro Cys Val Leu Arg Leu Trp Pro Val Pro Ala Asn Leu 65 70 75 80

Ser Ser Pro Phe Arg Leu Glu Ala Leu His Cys Ser Phe Trp Ser Ser 85 90 95

Pro Leu Leu Pro Ala Pro His Leu Ala Phe Phe Gly Phe Arg Asp Leu 100 105 110

Leu Thr Asp Phe Leu Leu Ala Ala Cys Leu Leu Thr Phe Gln Lys Thr 115 120 125

Pro Leu Glu Leu Pro Met Ala Val Val HisLeu Leu Val Ala Thr Pro 130 140

Cys Tyr Gln Met Leu Asp Asn Leu Pro Leu Pro Ser Ala Ala Ash 145 150 155 160

Trp Cys

<210> 493

<211> 67

<212> PRT

<213> Homo sapiens

<400> 493

Met Gln Pro Ala Cys Leu Ala Pro Cys Leu Asp Ala Leu Thr Ser Phe  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Cys Leu Gly Leu Leu Lys Leu Thr Phe Cys Leu Ala Phe Phe Pro Ser 20 25 30

Gly Val Leu Glu Gly Glu Cys Ser Phe Phe Thr Met Ser Arg Ser Leu

35 40 45

Ser His Pro Arg Thr Leu His Arg Tyr Thr Thr Glu Arg Pro Ala His 50 55 60

Ser Arg His

<210> 494

<211> 47

<212> PRT

<213> Homo sapiens

<400> 494

Met Leu Leu Phe Ser Ser Arg Phe Ile Met Phe Leu Trp Pro Pro Val  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Ser Gly Val Cys Leu Ser Phe Ile Arg Asp Arg Ser Phe Leu Pro Met 20 25 30

Cys His Phe Ile Tyr Val Leu Ile Leu Cys Asn Ser Ile Ala Leu 35 40 45

<210> 495

<211> 58

<212> PRT

<213> Homo sapiens

<400> 495

Met Thr Ala Met Ser Ile His Leu Phe Cys Thr Ala Leu Ser Cys Gly
1 10 15

Ser Ser Gly Gln Cys Asn Lys Ala Ile Lys Arg Asn Lys Ile Ser Asn 20 25 30

Asp Trp Lys Asp Val Asn Val Ser Ser Phe Ile Glu Asn Met Ile His  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Arg Tyr Thr Tyr Thr Asn Ala Leu Asn Ser 50

<210> 496

<211> 292

<212> PRT

<213> Homo sapiens

<400> 496

Met Leu Arg Val Leu Cys Leu Leu Arg Pro Trp Arg Pro Leu Arg Ala 1 5 10 15

Arg Gly Cys Ala Ser Asp Gly Ala Ala Gly Gly Ser Glu Ile Gln Val

20 25 30

Arg Ala Leu Ala Gly Pro Asp Gln Gly Ile Thr Glu Ile Leu Met Asn 35 40 45

- Arg Pro Ser Ala Arg Asn Ala Leu Gly Asn Val Phe Val Ser Glu Leu 50 60
- Leu Glu Thr Leu Ala Gln Leu Arg Glu Asp Arg Gln Val Arg Val Leu 65 70 75 80
- Leu Phe Arg Ser Gly Val Lys Gly Val Phe Cys Ala Gly Ala Asp Leu 85 90 95
- Lys Glu Arg Glu Gln Met Ser Glu Ala Glu Val Gly Val Phe Val Gln 100 105 110
- Arg Leu Arg Gly Leu Met Asn Asp Ile Ala Ala Phe Pro Ala Pro Thr 115 120 125
- Ile Ala Ala Met Asp Gly Phe Ala Leu Gly Gly Gly Leu Glu Leu Ala 130  $\phantom{\bigg|}$  135  $\phantom{\bigg|}$  140
- Leu Ala Cys Asp Leu Arg Val Ala Ala Ser Ser Ala Val Met Gly Leu 145 150 155 160
- Ile Glu Thr Thr Arg Gly Leu Leu Pro Gly Ala Gly Gly Thr Gln Arg 165 170 175
- Leu Pro Arg Cys Leu Gly Val Ala Leu Ala Lys Glu Leu Ile Phe Thr 180 185 190
- Gly Arg Arg Leu Ser Gly Thr Glu Ala His Val Leu Gly Leu Val Asn 195 200 205
- His Ala Val Ala Gln Asn Glu Glu Gly Asp Ala Ala Tyr Gln Arg Ala 210 215 220
- Arg Ala Leu Ala Gln Glu Ile Leu Pro Gln Ala Pro Ile Ala Val Arg 225 230 235 240
- Leu Gly Lys Val Ala Ile Asp Arg Gly Thr Glu Val Asp Ile Ala Ser 245 250 255
- Gly Met Ala Ile Glu Gly Met Gys Tyr Ala Gln Asn Ile Pro Thr Arg 260 265 270
- Asp Arg Leu Glu Gly Met Ala Ala Phe Arg Glu Lys Arg Thr Pro Lys 275 280 285

Phe Val Gly Lys 290

<210> 497 <211> 121

<212> PRT <213> Homo sapiens

<400> 497

Met Ile Met Ala Gln Lys Ile Gly Gly Leu Thr Trp Trp Ala Ile Met 1 5 10 15

Phe Ile Ile Leu Phe Glu Ile Thr Gly Thr Ser Ser Ser Phe Leu Arg

Ile Asn Ala Leu Pro His Phe Ser Met Asn Arg Cys Gly Glu Ala Tyr 35 40 45

Phe Pro Phe Ser Tyr Leu Tyr Thr Ser Leu Gln Lys Gln Phe Leu Met 50 60

Lys Val Ser Gly Ile Val Lys Asn Leu Arg Gly Asn Asp Asp Trp Arg 65 70 75 80

Cys Phe Gly Val Phe Phe Cys Ile His Phe Leu Met Arg Lys Val Leu 85 90 95

Asn Val Val Gln Val Arg Pro Asn Tyr Tyr Leu Thr Ile Ile Gly Arg 100 105 110

Phe Tyr Val Ser Val Lys Val Phe Lys 115 120

<210> 498

<211> 166

<212> PRT

<213> Homo sapiens

<400> 498

Met Ser Phe Thr Val Ser Met Ala Ile Gly Leu Val Leu Gly Gly Phe  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Ile Trp Ala Val Phe Ile Cys Leu Ser Arg Arg Arg Arg Ala Ser Ala 20 25 30

Pro Ile Ser Gln Trp Ser Ser Ser Arg Arg Ser Arg Ser Ser Tyr Thr
35 40 45

His Gly Leu Asn Arg Thr Gly Phe Tyr Arg His Ser Gly Cys Glu Arg 50 5 60

Arg Ser Asn Leu Ser Leu Ala Ser Leu Thr Phe Gln Arg Gln Ala Ser 65 70 75 80

Leu Glu Gln Ala Asn Ser Phe Pro Arg Lys Ser Ser Phe Arg Ala Ser 85 90 95

Thr Phe His Pro Phe Leu Gln Cys Pro Pro Leu Pro Val Glu Thr Glu 100 105 110

Ser Gln Leu Val Thr Leu Pro Ser Ser Asn Ile Ser Pro Thr Ile Ser 115 120 125

Thr Ser His Ser Leu Ser Arg Pro Asp Tyr Trp Ser Ser Asn Ser Leu 130 135 140

Lys Ala Phe Pro Asp Ser 165

<210> 499

<211> 79

<212> PRT

<213> Homo sapiens

<400> 499

Met Leu Ser Leu Asp Phe Leu Asp Asp Val Arg Arg Met Asn Lys Arg  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Gln Val Ser Leu Ser Val Leu Phe Phe Ser Trp Leu Phe Leu Ser Leu 20 25 30

Arg Gly Cys Cys Cys Gly Ala Arg Arg Thr Pro Gly Phe Trp Cys Glu 35 40 45

Gly Leu Ser Trp Ser Asp Thr Arg Val Ile Arg Phe Leu Trp Arg Leu 50 55 60

Trp Pro Glu Ala Ala Leu Ser Ala Ser Leu Phe Leu Thr Pro Asn 65 70 75

<210> 500

<211> 50

<212> PRT

<213> Homo sapiens

<400> 500

Met Tyr Ile Tyr Leu Ile His Leu Cys Met Cys Val Tyr Ile Tyr Ile 1 5 10 15

Tyr Ile Leu Leu Ile Ile Tyr Thr Leu Asp Pro Glu Pro Pro Ser Trp
20 25 30

Ser Pro Lys Leu Asp Ser His Leu Ser Leu Arg Gln Pro Ser Asn Asp 35 40 45

Arg Phe

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<210> 501
```

<211> 106

<212> PRT

<213> Homo sapiens

<400> 501

Met Phe Cys Phe Tyr Leu Asn Tyr Phe Thr Asn Leu Phe Leu Phe Leu  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Thr Cys Ser Arg Ser Glu Ser Leu Ser Ser Pro Thr Gly Pro Tyr Ser 20 25 30

Gly Phe Pro Phe Leu Lys Ser Pro Pro Val Arg Asn Ser Leu Asn Lys  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Gly Pro Leu Val Gln Tyr Tyr Ser Phe Ser Ser His Leu Arg Val 50 60

Pro Arg Lys Lys Gln Val Ile Arg Val Pro ValArg Val Pro Pro 65 70 75 80

Lys Ser Pro Ala Met Ser Pro Pro Ser Ser Pro Arg Phe His Phe Phe 85 90 95

Thr Phe Ser Gly Pro Phe Pro Asn Ser Tyr
100 105

<210> 502

<211> 112

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (69)

<223> Xaa equals any of the naturally occurring Bamino acids

<400> 502

Met Pro Val Leu Pro Gly Arg Thr Thr Ala Leu Leu Ser  $\oplus$ u Thr Leu 1 5 10 15

Ala Phe Ala Val Pro Cys Ser Gly Val Glu Ala Gly Pro Cys Val Pro 20 25 30

Arg Ser His Gly Cys Ser Ser Trp Glu Ala Ser Val Cys Val  $\mathrm{Hr}$ r Ser 35 40 45

Ser Thr Pro Gly Gly Ser Trp Arg Ala Arg Ala Leu Phe Pro Ser Ala 50 60

Ala Trp His Arg Xaa Ala Ala Trp Asp Ser Pro Trp Thr Gln Thr Gly 65 70 75 80

Asp Phe Ala Arg Gly Ala Met Gly Gly Ala Gly Ala Leu Pro Gly Gly 85 90 95

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105
<210> 503
<211> 49
<212> PRT
<213> Homo sapiens
<400> 503
Met Ile Asp Ile Cys His Ser Leu Arg Arg Glu His Phe Leu Leu Trp
                                    10
Ser Phe Leu Gly Leu Phe Tyr Trp Ala Val Asn Gly Lys Ser Val Cys
                                25
Val Ser Leu His Pro Lys His Leu Gly Lys Asn Glu Ser Leu Leu
Ile
<210> 504
<211> 44
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring Hamino acids
<220>
<221> SITE
<222> (34)
<223> Xaa equals any of the naturally occurring Eamino acids
Met Val Leu His Cys Ile Ala Trp Leu Gln Xaa Gly Ile Ser Phe Leu
Phe Leu Phe Leu Cys Val Ile Ala Ile Gly Ala Thr Asn Phe Ala Ser
            20
```

Pro Xaa Phe Tyr Lys Leu Val Ser Ser Gly Val Ala

Cys Val Cys Ile Ser Gly Arg Pro Arg Ala Gln Lys Leu Pro Ala Leu

<210> 505

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<211> 89
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (12)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (13)
<223> Xaa equals any of the naturally occurring Eamino acids
<220>
<221> SITE
<222> (72)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 505
Met Ser Gly Gly Leu Ser Phe Leu Leu Leu Val Xaa Xaa Gly Thr Gln
Ser Pro Leu His Leu Ala Gly Ser Cys Pro Gly Gln Thr His Leu Ser
Phe Pro Leu Gly Gln Asp Arg Gly Gln Gln Leu Gln Gln Lys Gln Gln
         35
Asp Leu Glu Gln Glu Gly Leu Glu Ala Thr Gln Gly Leu Leu Ala Gly
Glu Trp Ala Pro Pro Leu Trp Xaa Leu Gly Ser Leu Phe Gln Ala Phe
                     7.0
                                         75
Val Lys Arg Glu Ser Gln Ala Tyr Ala
                 85
<210> 506
<211> 51
<212> PRT
<213> Homo sapiens
<400> 506
Met Glu Arg Leu Val Leu Ser Leu Trp Ser Leu Thr Cys Arg Ala Ser
Pro Ala Asn Thr His Pro Arg Thr Thr Ser Arg Thr Arg Thr Leu Asp
                                 25
Val Lys Thr Lys Cys Pro Val Glu Ala Val Lys Leu Ser Glu Met Leu
         35
                             40
Pro Pro Val
```

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<210> 507
```

<213> Homo sapiens

<400> 507

Met Asp Pro Lys Leu Gly Arg Met Ala Ala Ser Leu Leu Ala Val Leu  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Leu Leu Leu Leu Glu Arg Gly Met Phe Ser Ser Pro Ser Pro Pro 20 25 30

Pro Ala Leu Leu Glu Lys Val Phe Gln Tyr Ile Asp Leu His Gln Asp  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Glu Phe Val Gln Thr Leu Lys Glu Trp Val Ala Ile Glu Ser Asp Ser 50 55 60

Val Gln Pro Val Pro Arg Phe Arg Gln Glu Leu Phe Arg Met Met Ala 65 70 75 80

Val Ala Asp Thr Leu Gln Arg Leu Gly Ala Arg Val Ala Ser Val
85 90 95

Asp Met Gly Pro Gln Gln Leu Pro Asp Gly Gln Ser Leu Pro Ile Pro 100 105 110

Pro Val Ile Leu Ala Glu Leu GlySer Asp Pro Thr Lys Gly Thr Val 115 120 125

Cys Phe Tyr Gly His Leu Asp Val Gln Pro Ala Asp Arg Gly Asp Gly 130 135

Trp Leu Thr Asp Pro Tyr Val Leu Thr Glu Val Asp GlyLys Leu Tyr 145 150 155 160

Gly Arg Gly Ala Thr Asp Asn Lys Gly Pro Val Leu Ala Trp Ile Asn 165 170 175

Ala Val Ser Ala Phe Arg Ala Leu Glu Gln Asp LeuPro Val Asn Ile 180 185 190

Lys Phe Ile Ile Glu Gly Met Glu Glu Ala Gly Ser Val Ala Leu Glu 195 200 205

Glu Leu Val Glu Lys Glu Lys Asp Arg Phe Phe Ser Gly Val AspTyr 210 215 220

Ile Val Ile Ser Asp Asn Leu Trp Ile Ser Gln Arg Lys Pro Ala Ile 225 230 235 240

Thr Tyr Gly Thr Arg Gly Asn Ser Tyr Phe Met Val Glu Val Lys Cys 245 250 255

<sup>&</sup>lt;211> 508

<sup>&</sup>lt;212> PRT

```
Arg Asp Gln Asp Phe His Ser Gly Thr Phe Gly Gly Ile Leu His Glu
Pro Met Ala Asp Leu Val Ala Leu Leu Gly Ser Leu Val Asp Ser Ser
Gly His Ile Leu Val Pro Gly Ile Tyr Asp Glu Val Val Pro Leu Thr
                       295
Glu Glu Glu Ile Asn Thr Tyr Lys Ala Ile His Leu Asp Leu Glu Glu
                   310
                                       315
Tyr Arg Asn Ser Ser Arg Val Glu Lys Phe Leu Phe Asp Thr Lys Glu
               325
                                   330
Glu Ile Leu Met His Leu Trp Arg Tyr Pro Ser Leu Ser Ile His Gly
Ile Glu Gly Ala Phe Asp Glu Pro Gly Thr Lys Thr Val Ile Pro Gly
Arg Val Ile Gly Lys Phe Ser Ile Arg Leu Val Pro His Met Asn Val
                       375
Ser Ala Val Glu Lys Gln Val Thr Arg His Leu Glu Asp Val Phe Ser
                           395
Lys Arg Asn Ser Ser Asn Lys Met Val Val Ser Met Thr Leu Gly Leu
His Pro Trp Ile Ala Asn Ile Asp Asp Thr Gln Tyr Leu Ala Ala Lys
Arg Ala Ile Arg Thr Val Phe Gly Thr Glu Pro Asp Met Ile Arg Asp
                           440
Gly Ser Thr Ile Pro Ile Ala Lys Met Phe Gln Glu Ile Val His Lys
                       455
Ser Val Val Leu Ile Pro Leu Gly Ala Val Asp Asp Gly Glu His Ser
Gln Asn Glu Lys Ile Asn Arg Trp Asn Tyr Ile Glu Gly Thr Lys Leu
               485
                                   490
Phe Ala Ala Phe Phe Leu Glu Met Ala Gln Leu His
           500
                               505
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<210> 508
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<sup>&</sup>lt;211> 77

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Homo sapiens

<sup>&</sup>lt;220>

<sup>&</sup>lt;221> SITE

<222> (69)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 508

Met Thr Gly Gln Ile Pro Arg Leu Ser Lys Val Asn Leu Phe Thr Leu  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Leu Ser Leu Trp Met Glu Leu Phe Pro Ala Glu Ala Gln Arg Gln Lys 20 25 30

Ser Gln Lys Asn Glu Glu Gly Lys His Gly Pro Leu Gly Asp Asn Glu 35 40 45

Glu Arg Thr Arg Val Ser Thr Asp Lys Arg Gln Asp Tyr Trp Glu Gln
50 60

Leu Arg Cys Leu Xaa Glu Arg Phe Thr Ile Thr Ala Gly 65 70 75

<210> 509

<211> 108

<212> PRT

<213> Homo sapiens

<400> 509

Met Lys Ala Leu Cys Leu Leu Leu Pro Val Leu Gly Leu Leu Val 1 5 10 15

Ser Ser Lys Thr Leu Cys Ser Met Glu Glu Ala Ile Asn Glu Arg Ile 20 25 30

Gln Glu Val Ala Gly Ser Leu Ile Phe Arg Ala Ile Ser Ser Ile Gly 35 40 45

Leu Glu Cys Gln Ser Val Thr Ser Arg Gly Asp Leu Ala Thr Cys Pro 50 60

Arg Gly Phe Ala Val Thr Gly Cys Thr Cys Gly Ser Ala Cys Gly Ser 65 70 75 80

Trp Asp Val Arg Ala Glu Thr Thr Cys His Cys Gln Cys Ala Gly Met 85 90 95

Asp Trp Thr Gly Ala Arg Cys Cys Arg Val Gln Pro 100 105

<210> 510

<211> 44

<212> PRT

<213> Homo sapiens

<400> 510

Met Arg Leu Arg Asn Gly Thr Val Ala Thr Ala Leu Ala Phe Ile Thr

1 5 10 15

Ser Phe Leu Thr Leu Ser Trp Tyr Thr Thr Trp Gln Asn Gly Lys Gly
20 25 30

Lys Glu Asn Asp Ser Glu Asn Val His Glu Met Tyr  $35 \hspace{1cm} 40$ 

<210> 511

<211> 327

<212> PRT

<213> Homo sapiens

<400> 511

Met Ala Cys Arg Lys Leu Ala Val Ala His Pro Leu Leu Leu Arg
1 5 10 15

His Leu Pro Met Ile Ala Ala Leu Leu His Gly Arg Thr His Leu Asn 20 25 30

Phe Gln Glu Phe Arg Gln Gln Asn His Leu Ser Cys Phe Leu His Val 35 40 45

Leu Gly Leu Leu Glu Leu Gln Pro His Val Phe Arg Ser Glu His 50 55 60

Gln Gly Ala Leu Trp Asp Cys Leu Leu Ser Phe Ile Arg Leu Leu 65 70 75 80

Asn Tyr Arg Lys Ser Ser Arg His Leu Ala Ala Phe Ile Asn Lys Phe 85 90 95

Val Gln Phe Ile His Lys Tyr Ile Thr Tyr Asn Ala Pro Ala Ala Ile 100  $$105\,$  110

Ser Phe Leu Gln Lys His Ala Asp Pro Leu His Asp Leu Ser Phe Asp 115 120 125

Asn Ser Asp Leu Val Met Leu Lys Ser Leu Leu Ala Gly Leu Ser Leu 130 135 140

Pro Ser Arg Asp Asp Arg Thr Asp Arg Gly Leu Asp Glu Glu Glu Glu 145 150 160

Glu Glu Ser Ser Ala Gly Ser Leu Pro Leu Val Ser Val Ser Leu Phe 165 170 175

Thr Pro Leu Thr Ala Ala Glu Met Ala Pro Tyr Met Lys Arg Leu Ser 180 185 90

Arg Gly Gln Thr Val Glu Asp Leu Leu Glu Val Leu Ser Asp Ile Asp 195 200 205

Glu Met Ser Arg Arg Pro Glu Ile Leu Ser Phe Phe Ser Thr Asn 210 215 220 Leu Gln Arg Leu Met Ser Ser Ala Glu Glu Cys Cys Arg Asn Leu Ala 225 230 235 240

Phe Ser Leu Ala Leu Arg Ser Met Gln Asn Ser Pro Ser Ile Ala Ala 245 250 255

Ala Phe Leu Pro Thr Phe Met Tyr Cys Leu Gly Ser Gln Asp Phe Glu 260 265 270

Val Val Gln Thr Ala Leu Arg Asn Leu Pro Glu Tyr Ala Leu Leu Cys 275 280 285

Gln Glu His Ala Ala Val Leu Leu His Arg Ala Phe Leu Val Gly Met 290 295 300

Tyr Gly Gln Met Asp Pro Ser Ala Gln Ile Ser Glu Ala Leu Arg Ile 305 310 315 320

Leu His Met Glu Ala Val Met 325

<210> 512

<211> 91

<212> PRT

<213> Homo sapiens

<400> 512

Met Gly Asp Lys Leu Gly Met Ala Arg Ala Pro Ser Val Ala Leu Ala 1 5 10 15

Gln Leu Trp Leu Ile Cys Leu Cys ProGlu Ser Leu Ala Ser Phe Val 20 25 30

Gln Ala Val Pro Trp Lys Val Leu Gln Pro Ser Ser Asn Arg Ser Thr 35 40 45

Asp Cys Ser Pro His Met Arg Pro Thr Cys Glu ThrLeu Gly Ser Arg 50 55 60

Lys Ala Gln Asp Leu Val Leu Asp Thr Met Cys Leu Ser Thr Asp Asp 65 70 75 80

Cys Gln Gly Leu Ile Cys Arg Gly His Arg Ser 85 90

<210> 513

<211> 243

<212> PRT

<213> Homo sapiens

<400> 513

Met Gly Thr Leu Pro Trp Leu Leu Ala Phe Phe Ile Leu Gly Leu Gln

1 5 10 15

Ala Trp Asp Thr Pro Thr Ne Val Ser Arg Lys Glu Trp Gly Ala Arg

Pro Leu Ala Cys Arg Ala Leu Leu Thr Leu Pro Val Ala Tyr Ile Ile 35 40 45

Thr Asp Gln Leu Pro Gly Met Gln Cys Gn Gln Gln Ser Val Cys Ser 50 60

Gln Met Leu Arg Gly Leu Gln Ser His Ser Val Tyr Thr Ile Gly Trp 65 70 75 80

Cys Asp Val Ala Tyr Asn Phe Leu Val Gly Asp Asp Gly Arg Val Tyr 85 90 95

Glu Gly Val Gly Trp Asn Ile Gln Gly Leu His Thr Gln Gly Tyr Asn 100 105 110

Asn Ile Ser Leu Gly Ile Ala Phe Phe Gly Asn Lys Ie Ser Ser Ser 115

Pro Ser Pro Ala Ala Leu Ser Ala Ala Glu Gly Leu Ile Ser Tyr Ala 130 135 140

Ile Gln Lys Gly His Leu Ser Pro Arg Tyr Ile Gln Pro Leu Leu 145 150 155 160

Lys Glu Glu Thr Cys Leu Asp Pro Gln His Pro Val Met Pro Arg Lys
165 170 175

Val Cys Pro Asn Ile Ile Lys Arg Ser Ala Trp Glu Ala Arg Glu Thr

His Cys Pro Lys Met Asn Leu Pro Ala Lys Tyr Val Ile Ile His 195 200 205

Thr Ala Gly Thr Ser Cys Thr Val Ser Thr Asp Cys Gln Thr Val Val 210 215 220

Arg Asn Ile Gln Ser Phe His Met Asp Thr Arg Asn Phe Cys Asp Ile 225 230 235 240

Gly Tyr Gln

<210> 514

<211> 301

<212> PRT

<213> Homo sapiens

<400> 514

Met Ala Arg His Gly Leu Pro Leu Leu Pro Leu Leu Ser Leu Leu Val 1 5 10 15

- Gly Ala Trp Leu Lys Leu Gly Asn Gly Gln Ala Thr Ser Met Val Gln 20 25 30
- Leu Gln Gly Gly Arg Phe Leu Met Gly Thr Asn Ser Pro Asp Ser Arg 35 40 45
- Asp Gly Glu Gly Pro Val Arg Glu Ala Thr Val Lys Pro Phe Ala Ile 50 55 60
- Asp Ile Phe Pro Val Thr Asn Lys Asp Phe Arg Asp Phe Val Arg Glu 65 70 75 80
- Lys Lys Tyr Arg Thr Glu Ala Glu Met Phe Gly Trp Ser Phe Val Phe 85 90 95
- Glu Asp Phe Val Ser Asp Glu Leu Arg Asn Lys Ala Thr Gln Pro Met 100 105 110
- Lys Ser Val Leu Trp Trp Leu Pro Val Glu Lys Ala Phe Trp Arg Gln 115 120 120
- Pro Ala Gly Pro Gly Ser Gly Ne Arg Glu Arg Leu Glu His Pro Val
- Leu His Val Ser Trp Asn Asp Ala Arg Ala Tyr Cys Ala Trp Arg Gly
  145 150 155 160
- Lys Arg Leu Pro Thr Glu Glu Glu Trp Gu Phe Ala Ala Arg Gly Gly 165 170 175
- Leu Lys Gly Gln Val Tyr Pro Trp Gly Asn Trp Phe Gln Pro Asn Arg 180 185 190
- Thr Asn Leu Trp Gln Gly Lys Phe Pro Lys Gy Asp Lys Ala Glu Asp 195 200 205
- Gly Phe His Gly Val Ser Pro Val Asn Ala Phe Pro Ala Gln Asn Asn 210 215 220
- Tyr Gly Leu Tyr Asp Leu Leu Gly Asn Val Trp Glu Trp Thr Ala **s**r 230 235 240
- Pro Tyr Gln Ala Ala Glu Gln Asp Met Arg Val Leu Arg Gly Ala Ser 245 250 255
- Trp Ile Asp Thr Ala Asp Gly Ser Ala Asn His Arg Ala Arg &l Thr 260 265 270
- Thr Arg Met Gly Asn Thr Pro Asp Ser Ala Ser Asp Asn Leu Gly Phe 275 280 285
- Arg Cys Ala Ala Asp Ala Gly Arg Pro Pro Gly Glu Leu 290 295 300

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<210> 515
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<211> 438

<212> PRT

<213> Homo sapiens

<400> 515

Met Pro Cys Thr Cys Thr Trp Arg Asn Trp Arg Gln Trp Ile Arg Pro  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Leu Val Ala Val Ile Tyr Leu Val Ser Ile Val Val Ala Val Pro Leu 20 25 30

Cys Val Trp Glu Leu Gln Lys Leu Glu Val Gly Ile His Thr Lys Ala 35 40 45

Trp Phe Ile Ala Gly Ile Phe Leu Leu Thr Ile Pro Ile Ser Leu 50 55 60

Trp Val Ile Leu Gln His Leu Val His Tyr Thr Gln Pro Glu Leu Gln 65 70 75 80

Lys Pro Ile Ile Arg Ile Leu Trp Met Val Pp Ile Tyr Ser Leu Asp 85 90 95

Ser Trp Ile Ala Leu Lys Tyr Pro Gly Ile Ala Ile Tyr Val Asp Thr 100 105 110

Cys Arg Glu Cys Tyr Glu Ala Tyr Val Ile Tyr A**n** Phe Met Gly Phe 115 120 125

Leu Thr Asn Tyr Leu Thr Asn Arg Tyr Pro Asn Leu Val Leu Ile Leu 130 135 140

Glu Ala Lys Asp Gln Gln Lys His Phe Pro Pro Leu Cys Cys Cys Pro 145 150 155 160

Pro Trp Ala Met Gly Glu Val Leu Leu Phe Arg Cys Lys Leu Gly Val 165 \$170\$

Leu Gln Tyr Thr Val Val Arg Pro Phe Thr Thr Ile Val Ala Leu Id 180 185 190

Cys Glu Leu Leu Gly Ile Tyr Asp Glu Gly Asn Phe Ser Phe Ser Asn 195 200 205

Ala Trp Thr Tyr Leu Val Ile Ile Asn Asn Met Ser Gln Leu Phe Ala 210 215 220

Met Tyr Cys Leu Leu Phe Tyr Lys Val Leu Lys Glu Glu Leu Ser 225 230 235 240

Pro Ile Gln Pro Val Gly Lys Phe Leu Cys Val Lys Leu Val Val Phe 245 250 255

Val Ser Phe Trp Gln Ala Val Val Ile Ala Leu Leu Val Lys Val Gly
260 265 270

```
Val Ile Ser Glu Lys His Thr Trp Glu Trp Gln Thr Val Glu Ala Val
275 280 285
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Ala Thr Gly Leu Gln Asp Phe Ile Ile Cys Ile Glu Met Phe Leu Ala 290 295 300

Ala Ile Ala His His Tyr Thr Phe Ser Tyr Lys Pro Tyr Val Gln Glu 305 310 35 320

Ala Glu Glu Gly Ser Cys Phe Asp Ser Phe Leu Ala Met Trp Asp Val 325 330 335

Ser Asp Ile Arg Asp Asp Ile Ser Glu Gln Val Arg His Val Gly Arg 340 345 350

Thr Val Arg Gly His Pro Arg Lys Leu Phe Pro Glu Asp Gln Asp 355 360 365

Gln Asn Glu His Thr Ser Leu Leu Ser Ser Ser Ser Gln Asp Ala Ile 370 375 380

Ser Ile Ala Ser Ser Met Pro Pro Ser Pro Met Gly His Tyr Gln Gly 385 390 395 400

Phe Gly His Thr Val Thr Pro Gln Thr Thr Pro Thr Thr Ala Lys Ile 405 410 415

Ser Asp Glu Ile Leu Ser Asp Thr Ile Gly Glu Lys Lys Glu Pro Ser 420 425 430

Asp Lys Ser Val Asp Ser 435

<210> 516

<211> 107

<212> PRT

<213> Homo sapiens

<400> 516

Met Val Arg Tyr Thr Tyr Ser Met Leu Ser Val Ile Gly Ile Ser Tyr 1 5 10 15

Ala Val Leu Thr Trp Leu Ser Gln Thr Leu Trp Met Pro Ile Tyr Pro 20 25 30

Leu Cys Val Leu Ala Glu Ala Phe Ala Ile Tyr Gln Ser Leu Pro Tyr  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Phe Glu Ser Phe Gly Thr Tyr Ser Thr Lys Leu Pro Phe Asp Leu Ser 50 55 60

Ile Tyr Phe Pro Tyr Val Leu Lys Ile TyrLeu Met Met Leu Phe Ile
65 70 75 80

Gly Met Tyr Phe Thr Tyr Ser His Leu Tyr Ser Glu Arg Arg Asp Ile

90 95

<210> 517

<211> 234

<212> PRT

<213> Homo sapiens

<400> 517

Met Arg Ile Arg Phe Thr Ser Pro His Pro Lys Asp Phe Pro Asp Glu

1 1 15

Val Leu Gln Leu Ile His Glu Arg Asp Asn Ile Cys Lys Gln Ile His  $20 \hspace{1cm} 25 \hspace{1cm} 30$ 

Leu Pro Ala Gln Ser Gly Ser Ser Arg Val Leu Glu Ala Met Arg Arg
35 40 45

Gly Tyr Ser Arg Glu Ala Tyr Val Glu Leu Val His His Ile Arg Glu 50 55 60

Ser Ile Pro Gly Val Ser Leu Ser Ser Asp Phe Ile Ala Gly Phe Cys 65 70 75 80

Gly Glu Thr Glu Glu Asp His Val Gln Thr Val Ser Leu Leu Arg Glu 85 90 95

Val Gln Tyr Asn Met Gly Phe Leu Phe Ala Tyr Ser Met Arg Gln Lys 100 105 110

Thr Arg Ala Tyr His Arg Leu Lys Asp Asp Val Pro Glu Glu Val Lys
115 120 125

Leu Arg Arg Leu Glu Glu Leu Ile Thr Ile Phe Arg Glu Glu Ala Thr 130 \$135\$

Lys Ala Asn Gln Thr Ser Val Gly Cys Thr Gln Leu ValLeu Val Glu
145 150 155 160

Gly Leu Ser Lys Arg Ser Ala Thr Asp Leu Cys Gly Arg Asn Asp Gly
165 170 175

Asn Leu Lys Val Ile Phe Pro Asp Ala Glu Met GluAsp Val Asn Asn 180 185 190

Pro Gly Leu Arg Val Arg Ala Gln Pro Gly Asp Tyr Val Leu Val Lys 195 200 205

Ile Thr Ser Ala Ser Ser Gln Thr Leu Arg Gly His Val Leu CysArg 210 215 220

Thr Thr Leu Arg Asp Ser Ser Ala Tyr Cys 235

- <210> 518
- <211> 470
- <212> PRT
- <213> Homo sapiens
- <400> 518
- Met Trp Phe Thr Tyr Leu Leu Leu Tyr Leu His Ser Val Arg Ala  $\mathfrak{F}^r$  1 5 10 15
- Ser Ser Arg Gly Ala Gly Leu Leu Leu Leu Gly Gln Val Ala Asp 20 25 30
- Gly Leu Cys Thr Pro Leu Val Gly Tyr Glu Ala Asp Arg Ala Ala Ser 35 40 45
- Cys Cys Ala Arg Tyr Gly Pro Arg Lys Ala Trp His Leu Val Gly Thr
  50 60
- Val Cys Val Leu Leu Ser Phe Pro Phe Ile Phe Ser Pro Cys Leu Gly
  65 70 75 80
- Cys Gly Ala Ala Thr Pro Glu Trp Ala Ala Leu Leu Tyr Tyr Gly Pro
  85 90 95
- Phe Ile Val Ile Phe Gln Phe Gly Trp Ala Ser Thr Gln Ile Ser His  $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110 \hspace{1.5cm}$
- Leu Ser Leu Ile Pro Glu Leu Val Thr Asn Asp His Glu Lys Val Glu 115 120 125
- Leu Thr Ala Leu Arg Tyr Ala Phe Thr Val Val Ala Asn Ile Thr Val 130 135 140
- Tyr Gly Ala Ala Trp Leu Leu Leu His Leu Gln Gly Ser Ser Arg Val 145 150 155 160
- Glu Pro Thr Gln Asp Ile Ser Ile Ser Asp Gln Leu Gly Gly Gln Asp 165 170 175
- Val Pro Val Phe Arg Asn Leu Ser Leu Leu Val Val Gly Val Gly Ala 180 185 190
- Val Phe Ser Leu Leu Phe His Leu Gly Thr Arg Glu Arg Arg Pro 195 200 205
- His Ala Glu Glu Pro Gly Glu His Thr Pro Leu Leu Ala Pro Ala Thr 210 215 220
- Ala Gln Pro Leu Leu Trp Lys His Trp Leu Arg Glu Pro Ala Phe 225 230 235 240
- Tyr Gln Val Gly Ile Leu Tyr Met Thr Thr Arg Leu Ile Val Asn Leu 245 250 255

Ser Gln Thr Tyr Met Ala Met Tyr Leu Thr Tyr Ser Leu His Leu Pro 260 265 270

Lys Lys Phe Ile Ala Thr Ile Pro Leu Val Met Tyr Leu Ser Gly Phe 275 280 285

Leu Ser Ser Phe Leu Met Lys Pro Ile Asn Lys Cys Ile Gly Arg Asn 290 295 300

Met Thr Tyr Phe Ser Gly Leu Leu Val Ile Leu Ala Phe Ala Ala Trp 305 310 315 320

Val Ala Leu Ala Glu Gly Leu Gly Val Ala Val Tyr Ala Ala Ala Val 325 330 335

Leu Leu Gly Ala Gly Cys Ala Thr Ile Leu Val Thr Ser Leu Ala Met 340 345 350

Thr Ala Asp Leu Ile Gly Pro His Thr Asn Ser Gly Ala Phe Val Tyr 355 360 365

Gly Ser Met Ser Phe Leu Asp Lys Val Ala Asn Gly Leu Ala Val Met 370 380

Ala Ile Gln Ser Leu His Pro Cys Pro Ser Glu Leu Cys Cys Arg Ala 385 390 395 400

Cys Val Ser Phe Tyr His Trp Ala Net Val Ala Val Thr Gly Gly Val 405 410 415

Gly Val Ala Ala Leu Cys Leu Cys Ser Leu Leu Leu Trp Pro Thr 420 425 430

Arg Leu Arg Arg Ser Arg Gly Gly Glu Hs Arg Thr Pro Ser Glu Gly 435 440 445

Glu Gly Ile Ser Thr Ala Pro Pro Pro Cys Trp Asn Glu Thr Gln Pro 450 455 460

Gln Gly Gly Ala Lys Leu 465 470

<210> 519

<211> 260

<212> PRT

<213> Homo sapiens

<400> 519

Met Ala Gly Ser Pro Leu Leu Trp Gly Pro Arg Ala Gly Gly Val Gly
1 5 10 15

Leu Leu Val Leu Leu Leu Gly Leu Phe Arg Pro Pro Pro Ala Lee 20 25 30

Cys Ala Arg Pro Val Lys Glu Pro Arg Gly Leu Ser Ala Ala Ser Pro

35 40 45

Pro Leu Ala Glu Thr Gly Ala Pro Arg Arg Phe Arg Arg Ser Val Pro 50 55 60

Arg Gly Glu Ala Ala Gly Ala Val Gln Asp Leu Ala Arg Ala Leu Ala 65 70 75 80

His Leu Leu Glu Ala Glu Arg Gln Glu Arg Ala Arg Ala Glu Ala Gln  $85 \hspace{1.5cm} 90 \hspace{1.5cm} 95$ 

Glu Ala Glu Asp Gln Gln Ala Arg Val Leu Ala Gln Leu Leu Arg Val 100 105 110

Trp Gly Ala Pro Arg Asn Ser Asp Pro Ala Leu Gly Leu Asp Asp Asp 115 120 125

Pro Asp Ala Pro Ala Ala Gln Leu Ala Arg Ala Leu Leu Arg Ala Arg 130  $$135\$ 

Leu Asp Pro Ala Ala Leu Ala Ala Gln Leu Val Pro Ala Pro Val Pro 145 55 160

Ala Ala Leu Arg Pro Arg Pro Pro Val Tyr Asp Asp Gly Pro Ala 165 170 175

Gly Pro Asp Ala Glu Glu Ala Gly Asp Glu Thr Pro Asp Val Asp Pro 180 185 190

Glu Leu Leu Arg Tyr Leu Leu Gly Arg Ile Leu Ala Gly Ser Ala Asp 195 200 205

Ser Glu Gly Val Ala Ala Pro Arg Arg Leu Arg Arg Ala Ala Asp His 210 225 220

Asp Val Gly Ser Glu Leu Pro Pro Glu Gly Val Leu Gly Ala Leu Leu 225 230 235 240

Arg Val Lys Arg Leu Glu Thr Pro Ala Pro Gln Val Pro Ala Arg Arg 245 250 250

Leu Leu Pro Pro 260

<210> 520

<211> 95

<212> PRT

<213> Homo sapiens

<400> 520

Met His Leu Cys Ile Cys Ala Val Trp Val Leu Val Ala Leu Leu Arg

Met His Gly Ala Ser Pro Ala Gln Thr Ser Gly Thr Arg Ser Gly Asn 20 25 30

Gly Gly Cys Arg Arg His Gly Ala Gly Gln Gly Arg Gly Ala Ala Thr 35 40 45

Gln Pro Leu Arg Pro Pro Arg Gly Thr Ala Ser Gly Gln Leu Met Ala 50 55 60

Leu Leu Ser Ala Leu Leu Pro Arg Leu Ser Gly Ser Ser Thr Pro Met 65 70 75 80

Met Ala His Gly Arg Pro Ala Pro ProGln Trp Ser Arg Val Ser 85 90 95

<210> 521

<211> 41

<212> PRT

<213> Homo sapiens

<400> 521

Met Asn Leu Ser Phe Leu Ser Phe Phe Leu Phe Phe Tyr Leu Leu Trp 1 5 10 15

Ser Pro Ala Glu Ser Val Tyr Lys Lys Gly Met Val Lys Lys Asn Leu 20 25 30

Ser His Ser Ile Val Glu Lys Ile Lys 35 40

<210> 522

<211> 163

<212> PRT

<213> Homo sapiens

<400> 522

Met Gly Ser Thr Trp Gly Ser Pro Gly Trp Val Arg Leu Ala Leu Cys
1 10 15

Leu Thr Gly Leu Val Leu Ser Leu Tyr Ala Leu His Val Lys Ala Ala 20 25 30

Arg Ala Arg Asp Arg Asp Tyr Arg Ala Leu Cys Asp Val Gly Thr Ala 35 40 45

Ile Ser Cys Ser Arg Val Phe Ser Ser Arg Trp Gly Arg Gly Phe Gly 50 55 60

Leu Val Glu His Val Leu Gly Gln Asp Ser Ile Leu Asn Gln Ser Asn 65 70 75 80

Ser Ile Phe Gly Cys Ile Phe Tyr Thr Leu Gln Leu Leu Gly Cys 85 90 95

Leu Arg Thr Arg Trp Ala Ser Val Leu Met Leu Leu Ser Ser Leu Val

100 105 110

Ser Leu Ala Gly Ser Val Tyr Leu Ala Trp Ile Leu Phe Phe Val Leu 115 120 125

Tyr Asp Phe Cys Ile Val Cys Ile Thr Thr Tyr Ala Ile Asn Val Ser 130 135 140

Leu Met Trp Leu Ser Phe Arg Lys Val Gln Glu Pro Gln Gly Lys Ala 145 150 155 160

Lys Arg His

<210> 523

<211> 113

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 523

Met Arg Pro Leu Leu Gly Gly Tyr Trp Val Leu Cys Leu Ser Val 1 5 15

Leu Gly His Ala Ala Leu Tyr His Phe Trp Leu Arg Glu Glu Gly Lys
20 25 30

Gly Pro Pro Gln Val Xaa Ser Val Leu Ala Leu Ala Leu Pro Ala Gly
35 40 45

Ser Cys Ala Pro Gly Leu Pro Phe Pro Gly Pro Leu Ile Pro Thr Gln 50 60

Leu Leu Phe Ala Leu Glu Trp Gly Thr Pro Thr Pro Leu Arg Asp His 65 70 75 80

Pro Pro His Ser Met His Ser Ala Pro Gln Asn Pro Pro Val Phe Leu 85 90 95

Gly Thr His Thr Cys Pro Pro Ser Trp Tyr Phe Arg Leu Ile Pro Gln 100 105 110

Ala

<210> 524

<211> 161

<212> PRT

<213> Homo sapiens

<400> 524

Met Ala Leu Ser Leu Thr Leu Cys Phe Val Met Phe Trp Thr Pro Asn 1 5 10 15

Val Ser Glu Lys Ile Leu Ile Asp Ile Ile Gly Val Asp Phe Ala Phe 20 25 30

Ala Glu Leu Cys Val Val Pro Leu Arg Ile Phe Ser Phe Phe Pro Val 35 40 45

Pro Val Thr Val Arg Ala His Leu Thr Gly Trp Leu Met Thr Leu Lys 50 60

Lys Thr Phe Val Leu Ala Pro Ser Ser Val Leu Arg Ile Ile Val Leu 65 70 75 80

Ile Ala Ser Leu Val Val Leu Pro TyrLeu Gly Val His Gly Ala Thr  $85 \hspace{1cm} 90 \hspace{1cm} 95$ 

Leu Gly Val Gly Ser Leu Leu Ala Gly Phe Val Gly Glu Ser Thr Met 100 105 110

Val Ala Ile Ala Ala Cys Tyr Val Tyr ArgLys Gln Lys Lys Met 115 120 125

Glu Asn Glu Ser Ala Thr Glu Gly Glu Asp Ser Ala Met Thr Asp Met 130 135 140

Pro Pro Thr Glu Glu Val Thr Asp Ile Val Glu Met Arg Glu GluAsn 145 150 155 160

Glu

<210> 525

<211> 348

<212> PRT

<213> Homo sapiens

<400> 525

Met Asn Met Thr Gln Ala Arg Val Leu Val Ala Ala Val Val Gly Leu

1 D 15

Val Ala Val Leu Leu Tyr Ala Ser Ile His Lys Ile Glu Glu Gly His  $20 \hspace{1cm} 25 \hspace{1cm} 30$ 

Leu Ala Val Tyr Tyr Arg Gly Gly Ala Leu Leu Thr Ser Pro Ser Gly 35 40 45

Pro Gly Tyr His Ile Met Leu Pro Phe Ile Thr Thr Phe Arg Ser Val 50 55 60

Gln Thr Thr Leu Gln Thr Asp Glu Val Lys Asn Val Pro Cys Gly Thr 65 70 75

Ser Gly Gly Val Met Ile Tyr Ile Asp Arg Ile Glu Val Val Asn Met  $85 \hspace{1.5cm} 90 \hspace{1.5cm} 95$ 

Leu Ala Pro Tyr Ala Val Phe Asp Ile Val Arg Asn Tyr Thr Ala Asp  $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110$ 

Tyr Asp Lys Thr Leu Ile Phe Asn Lys Ile His His Glu Leu Asn Gln 115 120 125

Phe Cys Ser Ala His Thr Leu Gln Glu Val Tyr Ile Glu Leu Phe Asp 130 135 140

Gln Ile Asp Glu Asn Leu Lys Gln Ala Leu Gln Lys Asp Leu Asn Leu 145 150 155 160

Met Ala Pro Gly Leu Thr Ile Gln Ala Val Arg Val Thr Lys Pro Lys 165 170 175

Ile Pro Glu Ala Ile Arg Arg Asn Phe Glu Leu Met Glu Ala Glu Lys 180 185 190

Thr Lys Leu Leu Ile Ala Ala Gln Lys Gln Lys Val Val Glu Lys Glu 195 200 205

Ala Glu Thr Glu Arg Lys Lys Ala Val Ile Glu Ala Glu Lys Ile Ala 210 215 220

Gln Val Ala Lys Ile Arg Phe Gln Gln Lys Val Met Glu Lys Glu Thr 225 230 235 240

Glu Lys Arg Ile Ser Glu Ile Glu AspAla Ala Phe Leu Ala Arg Glu 245 250 255

Lys Ala Lys Ala Asp Ala Glu Tyr Tyr Ala Ala His Lys Tyr Ala Thr 260 265 270

Ser Asn Lys His Lys Leu Thr Pro Glu TyrLeu Glu Leu Lys Lys Tyr 275 280 285

Gln Ala Ile Ala Ser Asn Ser Lys Ile Tyr Phe Gly Ser Asn Ile Pro 290 295 300

Asn Met Phe Val Asp Ser Ser Cys Ala Leu Lys Tyr Ser Asp IleArg 305 310 315

Thr Gly Arg Glu Ser Ser Leu Pro Ser Lys Glu Ala Leu Glu Pro Ser 325 330 335

<sup>&</sup>lt;210> 526

<sup>&</sup>lt;211> 44

<sup>&</sup>lt;212> PRT

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<213> Homo sapiens
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<400> 526

Met Pro Leu Cys Gly Leu Tyr Cys Leu Arg Ile Leu Met Phe Pro Leu 1 5 10 15

Arg Ser Ala Asn Ser Val Pro Leu Gln Cys Leu Pro Pro Ser Ser Leu 20 25 30

Ala Asn Lys Asp Ser His Phe Arg Ala Pro Arg Lys 35 40

<210> 527

<211> 50

<212> PRT

<213> Homo sapiens

<400> 527

Met Pro Gly Ile Leu Ala Gly Ile Pro Val Lys Asp Leu Cys Leu Ser 1 5 10 15

Leu Leu Gln Gly Phe Arg Leu Leu Leu Cys Val Cys Pro Gly Trp 20 25 30

Leu Ser Gly Trp Met Gly Gly Gln Lys Gly Ser Pro Arg Ile Val Asp
35 40 45

Ile Gly

<210> 528

<211> 206

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (143)

<223> Xaa equals any of the naturally occurring I-amino acids

<400> 528

Met Ala Ser His Gly Leu Cys Pro Cys Leu Leu Met Gly Thr Gly Trp  $_1$   $_5$   $_{10}$   $_{15}$ 

Gly Leu Trp Thr Leu Leu Pro Asp Leu Glu Val Met Ala Gly Lys Gly
20 25 30

Arg Met Pro Phe Ala Gly Ile Ser Val Thr Ser Gly Phe Leu Arg Ser 35 40 45

Leu Lys Arg Ala Pro Leu Pro His Thr Gly Ser Pro Asp Pro Arg Pro 50 55 60

Thr Ser Thr Gln Ile Ser Thr Ala Ala Pro Arg Phe His Ser Arg Arg 95

Lys Gly Pro Lys Arg Asn Leu Ala Pro Gln Leu Arg Val Leu Val His 110

Arg Thr Val Pro Pro Gly Gln Leu Val Tyr Ala Pro Gln Thr Val Asp 125

Ser Leu Arg Gly Thr Leu Leu Arg Pro Pro Ala Trp Leu Leu Xaa Gln 130

Val Pro Cys Phe Tyr Ser Gly Gln Pro Leu Leu Val Ser Ala Ser Val 145

Leu Cys Arg Asp Leu Met Gln Phe Leu Phe Leu Leu Lys Ser Tyr Leu

Ser Gly Ile Trp Ser Gly Val Arg Thr Thr Ser Glu Glu Ala Gly Ala

Leu Pro Phe Leu Glu Val Cys Arg Ile Gly Trp Glu Gln Ile Gln Arg

185

Ile Leu Gly Ala Gly Leu Trp Arg Gln Lys Glu Gly Asn Gly
195 200 205

<210> 529 <211> 190 <212> PRT <213> Homo sapiens

180

<400> 529

Met Pro Val Pro Thr Leu Cys Leu Leu Trp Ala Leu Ala Met Val Thr 1 5 10 15

Arg Pro Ala Ser Ala Ala Pro Met Gly Gly Pro Glu Leu Ala Gln His 20 25 30

Glu Glu Leu Thr Leu Leu Phe His Gly Thr Leu Gln Leu Gly Gln Ala 35 40 45

Leu Asn Gly Val Tyr Arg Thr Thr Glu Gly Arg Leu Thr Lys Ala Arg 50 55 60

Asn Ser Leu Gly Leu Tyr Gly Arg Thr Ile Glu Leu Leu Gly Gln Glu 65 70 75 80

Val Ser Arg Gly Arg Asp Ala Ala Gln Glu Leu Arg Ala Ser Leu Leu 85 90 95

Glu Thr Gln Met Glu Glu Asp Ile Leu Gln Leu Gln Ala Glu Ala Thr 100 105 110

Ala Glu Val Leu Gly Glu Val Ala Gln Ala Gln Lys Val Leu Arg Asp

115 120 125

Ser Val Gln Arg Leu Glu Val Gln Leu Arg Ser Ala Trp Leu Gly Pro 130 140

Ala Tyr Arg Glu Phe Glu Val Leu Lys Ala His Ala Asp Lys Gln Ser 145 150 155 160

His Ile Leu Trp Ala Leu Thr Gly His Val Gln Arg Gln Arg Glu 165 170 175

Met Val Ala Gln Gln His Arg Leu Arg Gln Ile Gln Glu Arg 180 185 190

<210> 530

<211> 75

<212> PRT

<213> Homo sapiens

<400> 530

Met Ser Arg Phe Ile Leu Asn His Leu Val Leu Ala Ile P $\sigma$  Leu Arg 1 5 10 15

Val Leu Val Val Leu Trp Ala Phe Val Leu Gly Leu Ser Arg Val Met 20 25 30

Leu Gly Arg His Asn Val Thr Asp Val Ala Phe Gly Phe Phe Læ Gly 35 40 45

Tyr Met Gln Tyr Ser Ile Val Asp Tyr Cys Trp Leu Ser Pro His Asn 50 60

Ala Pro Val Leu Phe Leu Leu Trp Ser Gln Arg

<210> 531

<211> 97

<212> PRT

<213> Homo sapiens

<400> 531

Met Cys Lys Gly Leu Lys Asn Pro Glu Gly Leu Leu Leu Leu Leu 1 5 10 15

Leu Leu Phe Thr Asp Thr Ser Asn Ser HisCys Leu Pro Pro Tyr 20 25 30

Leu Ser Cys Phe Leu His Glu Arg Gln Pro Glu Leu Gln Ser Val Cys 35 40 45

```
Leu Val Gly Phe Ser Glu Ala Gly Phe Ala Gln Val Ala Cys Phe Leu 65 70 75 80
```

Lys Tyr Leu Phe Cys Arg Pro Phe Thr Arg His Gly Tyr Phe Tyr Ser 85 90 95

Gly

```
<210> 532
```

<220>

<221> SITE

<222> (167)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 532

Met Gly Phe Phe Leu Val Leu Val Met Glu Gln Ile Thr Leu Ala Tyr
1 5 10 15

Lys Glu Gln Ser Gly Pro Ser Pro Leu Glu Glu Thr Arg Ala Leu Leu 20 25 30

Gly Thr Val Asn Gly Gly Pro Gln His Trp His Asp Gly Pro Gly Val  $$35\ $$  40  $$45\$ 

Pro Gln Ala Ser Gly Ala Pro Ala Thr Pro Ser Ala Leu Arg Ala Cys 50 55 60

Val Leu Val Phe Ser Leu Ala Leu His SerVal Phe Glu Gly Leu Ala 65 70 75 80

Val Gly Leu Gln Arg Asp Arg Ala Arg Ala Met Glu Leu Cys Leu Ala 85 90 95

Leu Leu Leu His Lys Gly Ile Leu AlaVal Ser Leu Ser Leu Arg Leu 100 105 110

Leu Gln Ser His Leu Arg Ala Gln Val Val Ala Gly Cys Gly Ile Leu 115 120 125

Phe Ser Cys Met Thr Pro Leu Gly Ile Gly Leu GlyAla Ala Leu Ala 130 135 140

Glu Ser Ala Gly Pro Leu His Gln Leu Ala Gln Ser Val Leu Glu Gly 145 150 155 160

Met Ala Ala Gly Thr Phe Xaa Tyr Ile Thr Phe Leu Glu IleLeu Leu 165 170 175

Phe His Pro Lys Phe Lys Gly Val Ser Arg Arg 180 185

<sup>&</sup>lt;211> 187

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Homo sapiens

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<210> 533
<211> 298
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (87)
<223> Xaa equals any of the naturally occurring bamino acids
<400> 533
Met Phe Phe Phe Asp Ser Val Gln Val Val Phe Thr Ile Cys Thr
                                    10
Ala Val Leu Ala Thr Ile Ala Phe Ala Phe Leu Leu Pro MetCys
Gln Tyr Leu Thr Arg Pro Cys Ser Pro Gln Asn Lys Ile Ser Phe Gly
Cys Cys Gly Arg Phe Thr Ala Ala Glu Leu Leu Ser Phe Ser Leu Ser
Val Met Leu Val Leu Ile Trp Val Leu Thr Gly His Trp Leu Leu Met
Asp Ala Leu Ala Met Gly Xaa Cys Val Ala Met Ile Ala Phe Val Arg
Leu Pro Ser Leu Lys Val Ser Cys Leu Leu Ser Gly Leu Leu Ile
            100
                                105
Tyr Asp Val Phe Trp Val Phe Phe Ser Ala Tyr Ile Phe Asn Ser Asn
                           120
Val Met Val Lys Val Ala Thr Gln Pro Ala Asp Asn Pro Leu Asp Val
Leu Ser Arg Lys Leu His Leu Gly Pro Asn Val Gly Arg Asp Val Pro
                   150
Arg Leu Ser Leu Pro Gly Lys Leu Val Phe Pro Ser Ser Thr Gly Ser
His Phe Ser Met Leu Gly Ile Gly Asp Ile Val Met Pro Gly Leu Leu
                               185
Leu Cys Phe Val Leu Arg Tyr Asp Asn Tyr Lys Lys Gln Ala Ser Gly
       195
```

Asp Ser Cys Gly Ala Pro Gly Pro Ala Asn Ile Ser Gly Arg Met Gln

Lys Val Ser Tyr Phe His Cys Thr Leu Ile Gly Tyr Phe Val Gly Leu

```
230
                                        235
                                                             240
225
Leu Thr Ala Thr Val Ala Ser Arg Ile His Arg Ala Ala Gln Pro Ala
                245
                                     250
Leu Leu Tyr Leu Val Pro Phe Thr Leu Leu Pro Leu Leu Thr Met Ala
                                265
            260
Tyr Leu Lys Gly Asp Leu Arg Arg Met Trp Ser Glu Pro Phe His Ser
                             280
Lys Ser Ser Ser Ser Arg Phe Leu Glu Val
    290
                        295
<210> 534
<211> 232
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (36)
<223> Xaa equals any of the naturally occurring Hamino acids
<220>
<221> SITE
<222> (67)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
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<222> (70)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
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<222> (71)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (82)
<223> Xaa equals any of the naturally occurring bamino acids
<220>
<221> SITE
<222> (92)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 534
Met Ala Ile Ser Ile Pro Asn Arg Ile Phe Pro Ile Thr Aa Leu Thr
```

30

Leu Leu Ala Leu Val Tyr Ser Leu Val Leu Leu Pro Phe Tyr Asn

25

20

```
Cys Thr Glu Xaa Thr Lys Tyr Arg Arg Phe Pro Asp Trp Leu \Delta p His 35 40 45
```

Trp Met Leu Cys Arg Lys Gln Leu Gly Leu Val Ala Leu Gly Phe Ala 50 55 60

Phe Leu Xaa Val Leu Xaa Xaa Leu Val Ile Pro Ile Arg Tyr Tyr Val 65 70 75 80

Arg Xaa Arg Leu Gly Asn Leu Thr Val Thr Gln Xaa Ile Leu Lys Lys 85 90 95

Glu Asn Pro Phe Ser Thr Ser Ser Ala Trp Leu Ser Asp Ser Tyr Val 100 105 110

Ala Leu Gly Ile Leu Gly Phe Phe Leu Phe Val Leu Leu Gly Ile Thr 115 120 125

Ser Leu Pro Ser Val Ser Asn Ala Val Asn Trp Arg Glu Phe Arg Phe 130 135 140

Val Gln Ser Lys Leu Gly Tyr Leu Thr Leu Ile Leu Cys Thr Ala His 145 150 155 160

Thr Leu Val Tyr Gly Gly Lys Arg Phe Leu Ser Pro Ser Asn Leu Arg 165 170 175

Trp Tyr Leu Pro Ala Ala Tyr Val Leu Gly Leu Ile Ile Pro Cys Thr 180 185 190

Val Leu Val Ile Lys Phe Val Leu Ile Met Pro Cys Val Asp Asn Thr 195 200 205

Leu Thr Arg Ile Arg Arg Ala Gly Lys Gly Thr Gln Asn Thr Arg Lys 210 215 220

Ser Ile Glu Trp Lys Ile Asn Ile 225 230

<210> 535

<211> 58

<212> PRT

<213> Homo sapiens

<400> 535

Met Glu Pro Trp Ser Trp Phe Phe Phe Phe Phe Phe Phe Phe Pro Gln 1 5 15

Arg Thr Cys Gly Cys Ala Leu Cys Val Leu Phe Leu Phe Ser Ile Trp 20 25 30

Gly Pro His Gly Lys Glu Leu Leu Asn Ser Phe Leu Tyr Glu Leu Pro 35 40 45

```
50
<210> 536
<211> 46
<212> PRT
<213> Homo sapiens
<400> 536
Met Thr Leu Ser Leu Gln Leu Ala Glu Leu Val His Phe Val Cys Ala
Phe Gln Ser Gln Trp Thr Gly Val Tyr Pro Met Met Pro Pro Leu Lys
                                25
Pro Thr Glu Pro Leu Cys Phe Ala Cys Val Pro Cys Arg Val
<210> 537
<211> 77
<212> PRT
<213> Homo sapiens
<400> 537
Met Ser Val Trp Pro Arg Ser Thr Leu Leu Phe Cys Leu Leu Ser Leu
Ser Thr Gly Leu Phe Leu Asp Lys Leu Gly Ile Ile Pro Ile Leu
Leu Cys Gly Trp Lys Val Lys Cys Asp Asn Asp Val Cys Glu Met Pro
                             40
Ala Gln Cys Leu Glu Val Leu Lys Asn Tyr Leu Leu Pro Phe Leu Phe
Leu Pro Thr Thr Tyr Pro Leu Pro Pro Gly Ala Thr Cys
<210> 538
<211> 83
<212> PRT
<213> Homo sapiens
<400> 538
Met Ala Ser Pro Gly Trp His Leu Ser Cys Arg Pro Thr Gly Leu Val
Ser Ile Phe Leu Cys Ala Pro Ala Tyr Leu Ħs Ser Phe Val Met
```

Leu Cys Ser Tyr Lys Gly Pro Phe Leu Ser

20

25

```
Thr Ser Ile Thr Leu Ile Ser Thr Lys Ile Cys Ser Pro Thr Lys Leu 35 \hspace{1.5cm} 40 \hspace{1.5cm} 45
```

Arg His Arg Thr His Phe Leu Tyr Gly Ser Ile Met Glu Leu Fr Pro 50 60

Thr Leu Thr Phe Pro Met Thr Thr Asp Val Glu Asn Leu Asn Leu Asp 65 70 75 80

Ser Ser Arg

```
<210> 539
```

<211> 73

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring £amino acids

<400> 539

Met Gly Phe Trp Cys Gly Cys Pro Phe Cys Leu Leu Val Phe Leu Leu  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Thr Val Arg Thr Arg Ser Phe Xaa Ser Val Gly Val Cys Trp Arg Ser 20 25 30

Thr Pro Asp Pro Leu Cys Leu Gly Ile Ser Ser Arg Ser Cys Arg Thr 35 40 45

Ala Asp Ile Gly Glu Gln Met Leu Leu Pro Asp Arg Ser Ser Gly 50 55 60

Ser Phe Val Ser Glu Tyr Pro Ala Met

<210> 540

<211> 152

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (66)

<223> Xaa equals any of the naturally occurring bamino acids

<220>

<221> SITE

<222> (77)

<223> Xaa equals any of the naturally occurring Lamino acids

```
<220>
 <221> SITE
 <222> (81)
 <223> Xaa equals any of the naturally occurring Eamino acids
 <220>
 <221> SITE
 <222> (84)
<223> Xaa equals any of the naturally occurring \pm amino acids
<220>
<221> SITE
<222> (86)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (87)
<223> Xaa equals any of the naturally \alphacurring L-amino acids
<220>
<221> SITE
<222> (93)
<223> Xaa equals any of the naturally occurring Eamino acids
<220>
<221> SITE
<222> (103)
<223> Xaa equals any of the naturally occurring Eamino acids
<220>
<221> SITE
<222> (110)
<223> Xaa equals any of the naturally occurring Famino acids
<400> 540
Met Asp His Ser Pro Thr Thr Gly Val Val Thr Val Ile Val Ile Leu
                                      10
Ile Ala Ile Ala Ala Leu Gly Ala Phe Asp Pro Gly Leu Leu &l Leu
Pro Ala Ala Ala His Gln Pro Val Arg Gly Arg Gly Glu His Arg
                                                  4.5
Gly Gly Trp Gly Asp Gln Gly Thr Leu Pro Ala Gly Ala Val Phe Gly
                         55
Gln Xaa Thr Val Arg Gly Glu Lys Gly Gln Ala Asp Xaa Ser Gln Thr
                     70
Xaa Arg Lys Xaa Thr Xaa Xaa Pro Gly Cys Lys Gly Xaa Leu Val Pro
Val Cys Lys Pro Ala Lys Xaa Gly Leu Gly Gly Ala Lys Xaa Ile Arg
            100
```

Met Arg Cys Cys Leu Arg Gly Arg Ala Asp Thr Cys Trp His Gly Leu 115 120 125

Cys Gly Phe Arg Pro Ser His Ala Leu Met Pro Gly Asp Leu Ala Val 130 135 140

Leu Gly Phe Pro Ser Ala Ser Arg 145 150

<210> 541

<211> 88

<212> PRT

<213> Homo sapiens

<400> 541

Met Val Ala Gly Phe Val Phe Tyr Leu Gly Val Phe Val Val Cys His  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Gln Leu Ser Ser Ser Leu Asn Ala Thr Tyr Arg Ser Leu Val Ala Arg 20 30

Glu Lys Val Phe Trp Asp Leu Ala Ala Thr Arg Ala Val Phe Gly Val 35 40 45

Gln Ser Thr Ala Ala Ala Val Gly Ser Ala Gly Gly Pro Cys Ala Ala 50 6

Cys Arg Gln Gly Ala Trp Pro Ala Glu Leu Val Leu Val Ser His His 65 70 75 80

Asp Ser Asn Gly Ile Leu Leu Leu 85

<210> 542

<211> 340

<212> PRT

<213> Homo sapiens

<400> 542

Met Ala Leu Arg Leu Leu Arg Arg Ala Ala Arg Gly Ala Ala Ala 1 10 15

Ala Leu Leu Arg Leu Lys Ala Ser Leu Ala Ala Asp Ile Pro Arg Leu 20 25 30

Gly Tyr Ser Ser Ser His His Lys Tyr Ile Pro Arg Arg Ala Val 35 40 45

Leu Tyr Val Pro Gly Asn Asp Glu Lys Lys Ile Lys Lys Ile Pro Ser 50 60

Leu Asn Val Asp Cys Ala Val Leu Asp Cys Glu Asp Gly Val Ala Ala 65 70 75 80

Asn Lys Lys Asn Glu Ala Arg Leu Arg Ile Val Lys Thr Leu Glu Asp 85 90 95

Ile Asp Leu Gly Pro Thr Glu Lys Cys Val Arg Val Asn Ser Val Ser 100 105 110

Ser Gly Leu Ala Glu Glu Asp Leu Glu Thr Leu Leu Gln Ser Arg Val

Leu Pro Ser Ser Leu Met Leu Pro Lys Val Glu Ser Pro Glu Glu Ile 130 135 140

Gln Trp Phe Ala Asp Lys Phe Ser Phe His Leu Lys Gly Arg Lys Leu 145 150 155 160

Glu Gln Pro Met Asn Leu Ile Pro Phe Val Glu Thr Ala Met Gly Leu 165 170 175

Leu Asn Phe Lys Ala Val Cys Glu Glu Thr Leu Lys Val Gly Pro Gln
180 185 190

Val Gly Leu Phe Leu Asp Ala Val Val Phe Gly Gly Glu Asp Phe Arg 195 200 205

Ala Ser Ile Gly Ala Thr Ser Ser Lys Glu Thr Leu Asp Ile Leu Tyr 210 215 220

Ala Arg Gln Lys Ile Val Val Ile Ala Lys Ala Phe Gly LeuGln Ala 225 230 235 240

Val Asp Leu Val Tyr Ile Asp Phe Arg Asp Gly Ala Gly Leu Leu Arg 245 250 255

Gln Ser Arg Glu Gly Ala Ala Met Gly Phe Thr Gly LysGln Val Ile 260 265 270

His Pro Asn Gln Ile Ala Val Val Gln Glu Gln Phe Ser Pro Ser Pro 275 280 285

Glu Lys Ile Lys Trp Ala Glu Glu Leu Ile Ala Ala Phe Lys Glu His 290 295 300

Gln Gln Leu Gly Lys Gly Ala Phe Thr Phe Gln Gly Ser Met Ile Asp 305 310 315 320

Met Pro Leu Leu Lys Gln Ala Gln Asn Thr Val Thr Leu Ala Thr Ser 325 330 335

Ile Lys Glu Lys 340

<210> 543

<211> 64

<212> PRT

```
<213> Homo sapiens
<400> 543
Met Val Arg His Ile Arg Glu Arg Arg Gln Pro Leu Ala Phe Gln
Arg Val Leu Leu Ser Leu Cys Leu Leu Glu Gly Ile Trp His Ser Pro
                                  2.5
Ala Ala Ala Gly Gly Gly Ser His Cys Ser Ser Trp Pro Ser Leu
Tyr Thr Thr Phe Gln Arg Val Ser Leu Leu Glu Leu Asp Leu Gly Leu
                         55
<210> 544
<211> 44
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (16)
<223> Xaa equals any of the naturally occurring I-amino acids
<400> 544
Met Cys Leu Pro Leu Leu His Cys Thr Gly Ala Leu Trp Gly Lys Xaa
Val Leu Leu Phe Leu Tyr Cys Leu Ala Gln Ser Phe Ala Tyr Ser Arg
             20
                                 25
                                                      30
His Gln Thr Val Gly Leu Val Val His Asp Tyr Trp
                             40
<210> 545
<211> 221
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (184)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 545
Met Ala Gly Gly Val Arg Pro Leu Arg Gly Leu Arg Ala Leu Cys Arg
```

Val Leu Leu Phe Leu Ser Gln Phe Cys Ile Leu Ser Gly Gly Glu Ser

20 25 30

Thr Glu Ile Pro Pro Tyr Val Met Lys Cys Pro Ser Asn Gly Leu Cys 35 40 45

- Ser Arg Leu Pro Ala Asp Cys Ile Asp Cys Thr Thr Asn Phe Ser Cys 50 60
- Thr Tyr Gly Lys Pro Val Thr Phe Asp Cys Ala Val Lys Pro Ser Val 65 70 75 80
- Thr Cys Val Asp Gln Asp Phe Lys Ser Gln Lys Asn Phe Ile Ile Asn 85 9 95
- Met Thr Cys Arg Phe Cys Trp Gln Leu Pro Glu Thr Asp Tyr Glu Cys 100 105 110
- Thr Asn Ser Thr Ser Cys Met Thr Val Ser Cys Pro Arg Gln Arg Tyr 115 120 125
- Pro Ala Asn Cys Thr Val Arg Asp His Val His Cys Leu Gly Asn Arg 130 135 140
- Thr Phe Pro Lys Met Leu Tyr Cys Asn Trp Thr Gly Gly Tyr Lys Trp 145 150 155 166
- Ser Thr Ala Leu Ala Leu Ser Ile Thr Leu Gly Gly Phe Gly Ala Asp 165 170 175
- Arg Phe Tyr Leu Gly Gln Trp Xaa Glu Gly Leu Gly Lys Leu Phe Ser 180 185 190
- Phe Gly Gly Leu Gly Ile Trp Thr Leu Ile Asp Val Leu Leu Ile Gly 195 200 205
- Val Gly Tyr Val Gly Pro Ala Asp Gly Ser Leu Tyr Ile 210 215 220

<210> 546

<211> 39

<212> PRT

<213> Homo sapiens

<400> 546

- Met Trp Leu Thr Gln Pro Glu Ser Leu Ser Leu Cys Val Ser Val Ser 1 5 10 15
- Gln Asp Trp Ala His Ile Leu Ala Leu Ser Ile Thr Met Leu Trp Asp 20 25 30

Phe Arg Glu Phe Pro His Leu

```
<210> 547
```

<211> 62

<212> PRT

<213> Homo sapiens

<400> 547

Met Glu Asn Val Cys Gln Ala Gly Phe Pro Ser Leu Leu His Leu Asn  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Ile Thr Leu Thr Leu Gly Leu Ala Gln Cys Tyr Leu Ala Asn Phe 20 25 30

Ser Ser Cys Arg Glu Gly Ser Glu His Tyr Leu Phe Phe Phe Phe 35 40 45

Leu Leu Glu Pro Gly Leu His Lys Ala Met Ala Lys Phe Ser 50 60

<210> 548

<211> 64

<212> PRT

<213> Homo sapiens

<400> 548

Met Val Ser Pro Leu Ile Ser Ala Leu Phe His Val Pro Phe Leu Trp
1 5 10 15

Leu Gly Met Phe Phe Pro His Ser Leu Ser Gly Pro Phe Pro Ser His

Leu Arg Arg Ala Ser Ser Ser Arg Lys Pro Leu Val Lys Pro Pro Arg 35 40 45

Ala Arg Gln Tyr Pro Pro Leu Ala Ser Ser Gly Tyr Arg Gly Arg Ile 50 55 60

<210> 549

<211> 62

<212> PRT

<213> Homo sapiens

<400> 549

Met Lys Asn Ser Thr Ser Leu Leu Tyr Lys Leu Phe Ser Ser Leu Ser  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Val Phe Ile Phe Lys Phe Leu Leu Phe Tyr Thr Leu His Ile Ala 20 25 30

Leu Gly Val Lys Ile Glm Tyr Lys Pro Leu Ala His Phe Ile Asp His  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Ser Cys Ile Gln Gln Val Ser Gln Val Gln Trp Ser Ile Pro 50 60

<210> 550

<211> 49

<212> PRT

<213> Homo sapiens

<400> 550

Met Ala Pro Arg Asn Gln Gly Ser Phe Ser Phe Gly Asn Phe Met Leu

1 10 15

Phe Leu Val Leu Ile Glu Arg Arg Tyr Leu Pro Phe Leu Ser Pro Ile 20 25 30

Leu Phe Cys Cys Ser Thr His Asn Arg Ser Ala Val Thr Ala Thr Asn 35 40 45

Leu

<210> 551

<211> 957

<212> PRT

<213> Homo sapiens

<400> 551

Met Ala Leu Leu His Trp Gly Ala Leu TrpArg Gln Leu Ala Ser Pro 1 5 10 15

Cys Gly Ala Trp Ala Leu Arg Asp Thr Pro Ile Pro Arg Trp Lys Leu 20 25 30

Ser Ser Ala Glu Thr Tyr Ser Arg Met Arg LeuLys Leu Val Pro Asn 35 40 45

His His Phe Asp Pro His Leu Glu Ala Ser Ala Leu Arg Asp Asn Leu 50 60

Gly Glu Val Pro Leu Thr Pro Thr Glu Glu Ala Ser Leu Pro Leu Ala 65 70 75 80

Val Thr Lys Glu Ala Lys Val Ser Thr Pro Pro Glu Leu Leu Gln Glu 85 90 95

Asp Gln Leu Gly Glu Asp Glu Leu Ala Glu Leu Glu Thr Pro MetGlu 100 105 110

Ala Ala Glu Leu Asp Glu Gln Arg Glu Lys Leu Val Leu Ser Ala Glu 115 120 125

Cys Gln Leu Val Thr Val Val Ala Val Val Pro Gly Leu Leu Glu Val

	130	ı				135	<b>)</b>				140	)			
Thr 145		Gln	n Asr	n Val	l Tyr 150		e Tyr	Asp	Gly	/ Sei 155		Glı	ı Arç	g Val	l Gli 160
Thr	Glu	Glu	Gly	/ Ile 165	e Gly	/ Tyr	Asp	Phe	2 Arg		g Pro	) Let	a Ala	a Glr 175	
Arg	Glu	Val	His		ı Arç	J Arc	g Phe	Asn 185		ı Arç	g Aro	g Sei	Ala 190		ı Glu
Leu	Phe	Phe 195	: Ile	e Asp	o Gln	a Ala	Asn 200	Tyr	Ph∈	e Leu	ı Asr	n Ph∈ 205		o Cys	s Lys
Val	Gly 210	Thr	Thr	Pro	) Val	Ser 215		Pro	Ser	Glr	Thr 220		Arg	g Pro	Glr
Pro 225	Gly	Pro	Ile	Pro	230		Thr	Gln	Val	. Arg 235	Asn	Glr	n Val	Tyr	Ser 240
Trp	Leu	Leu	Arg	Leu 245	Arg	Pro	Pro	Ser	Gln 250		Tyr	Leu	ı Ser	Ser 255	
Ser	Pro	Gln	Glu 260		Leu	Arg	Ala	Ser 265		Leu	Thr	Gln	Lys 270	Trp	Val
Gln	Arg	Glu 275	Ile	Ser	Asn	Phe	Glu 280		Leu	Met	Gln	Leu 285		Thr	Ile
Ala	Gly 290	Arg	Thr	Tyr	Asn	Asp 295		Ser	Gln	Tyr	Pro 300		Phe	Prc	Trp
Val 305	Leu	Gln	Asp	Tyr	Val 310	Ser	Pro	Thr	Leu	Asp 315		Ser	Asn	Pro	Ala 320
Val	Phe	Arg	Asp	Leu 325	Ser	Lys	Pro	Ile	Gly 330		Val	Asn		Lys 335	His
Ala	Gln	Leu	Val 340	Arg	Glu	Lys	Tyr	Glu 345	Ser	Phe	Glu	Asp	Pro 350		Gly
Thr	Ile	Asp 355	Lys	Phe	His	Tyr	Gly 360	Thr	His	Туr	Ser	Asn 365		Ala	Gly
Val	Met 370	His	Tyr	Leu	Ile	Arg 375	Val	Glu	Pro	Phe	Thr 380		Leu	His	Val
Gln 385	Leu	Gln	Ser	Gly	Arg 390	Phe	Asp	Cys	Ser	Asp 395	Arg	Gln	Phe	His	Ser 400
Val	Ala	Ala	Ala	Trp 405	Gln	Ala	Arg	Leu	Glu 410	Ser	Pro	Ala	Asp	Val 415	
Glu	Leu	Ile	Pro 420	Glu	Phe	Phe	Tyr	Phe 425	Pro	Asp	Phe	Leu	Glu 430	Asn	Gln
Asn	Gly	Phe	Asp	Leu	Glv	Cvs	Leu	Gln	T.e.ii	Thr	Asn	Glu	Lvs	Val	Glv

		435					440					445			
Asp	Val 450	Val	Leu	Pro	Pro	Trp 455	Ala	Ser	Ser	Pro	Glu 460	Asp	Phe	Ile	Glr
Gln 465	His	Arg	Gln	Ala	Leu 470	Glu	Ser	Glu	Tyr	Val 475		Ala	His	Leu	His 480
Glu	Trp	Ile	Asp	Leu 485	Ile	Phe	Gly	Tyr	Lys 490		Arg	Gly	Pro	Ala 495	
Glu	Glu	Ala	Leu 500	Asn	Val	Phe	Tyr	Tyr 505	Суѕ	Thr	Tyr	Glu	Gly 510		Val
Asp	Leu	Asp 515	His	Val	Thr	Asp	Glu 520	Arg	Glu	Arg	Lys	Ala 525	Leu	Glu	Gly
Ile	Ile 530	Ser	Asn	Phe	Gly	Gln 535	Thr	Pro	Cys	Gln	Leu 540	Leu	Lys	Glu	Pro
His 545	Pro	Thr	Arg	Leu	Ser 550	Ala	Glu	Glu	Ala	Ala 555	His	Arg	Leu	Ala	Arc 560
Leu	Asp	Thr	Asn	Ser 565	Pro	Ser	Ile	Phe	Gln 570	His	Leu	Asp	Glu	Leu 575	-
Ala	Phe	Phe	Ala 580	Glu	Val	Val	Ser	Asp 585	Gly	Val	Pro	Leu	Val 590		Ala
Leu	Val	Pro 595	His	Arg	Gln	Pro	His 600	Ser	Phe	Ile	Thr	Gln 605	Gly	Ser	Pro
Asp	Leu 610	Leu	Val	Thr	Val	Ser 615	Ala	Ser	Gly	Leu	Leu 620	Gly	Thr	His	Ser
Trp 625	Leu	Pro	Tyr	Asp	Arg 630	Asn	Ile	Ser	Asn	Tyr 635	Phe	Ser	Phe	Ser	Lys 640
Asp	Pro	Thr	Met	Gly 645	Ser	His	Lys	Thr	Gln 650	Arg	Leu	Leu	Ser	Gly 655	Pro
Trp	Val	Pro	Gly 660	Ser	Gly	Val	Ser	Gly 665	Gln	Ala	Leu	Ala	Val 670	Ala	Pro
Asp	Gly	Lys 675	Leu	Leu	Phe	Ser	Gly 680	Gly	His	Trp	Asp	Gly 685	Ser	Leu	Arg
Val	Thr 690	Ala	Leu	Pro	Arg	Gly 695	Lys	Leu	Leu	Ser	Gln 700	Leu	Ser	Cys	His
Leu 705	Asp	Val	Val	Thr	Cys 710	Leu	Ala	Leu	Asp	Thr 715	Cys	Gly	Ile	Tyr	Leu 720
Ile	Ser	Gly	Ser	Arg 725	Asp	Thr	Thr		Met 730	Val	Trp	Arg	Leu	Leu 735	His

Gln Gly Gly Leu Ser Val Gly Leu Ala Pro Lys Pro Val Gln Val Leu

Tyr Gly His Gly Ala Ala Val Ser Cys Val Ala Ile Ser Thr Glu Leu
755 760 765

Asp Met Ala Val Ser Gly Ser Glu Asp Gly Thr Val Ile Ile His Thr 770 780

Val Arg Arg Gly Gln Phe Val Ala Ala Leu Arg Pro Leu Gly Ala Thr 785 790 795 800

Phe Pro Gly Pro Ile Phe His Leu Ala Leu Gly Ser Glu Gly Gln Ile 805 810 815

Val Val Gln Ser Ser Ala Trp Glu Arg Pro Gly Ala Gln Val Thr Tyr 820 825 830

Ser Leu His Leu Tyr Ser Val Asn Gly Lys Leu Arg Ala Ser Leu Pro 835 840 845

Leu Ala Glu Gln Pro Thr Ala Leu Thr Val Thr Glu Asp Phe Val Leu 850 860

Leu Gly Thr Ala Gln Cys Ala Leu His Ile Leu Gln Leu Asn Thr Leu 865 870 875 880

Leu Pro Ala Ala Pro Pro Leu Pro Met Lys Val Ala Ile Arg Ser Val 885 890 895

Ala Val Thr Lys Glu Arg Ser His Val Leu Val Gly Leu Glu Asp Gly 900 905 910

Lys Leu Ile Val Val Val Ala Gly Gln Pro Ser Glu Val Arg Ser Ser 915 920 925

Gln Phe Ala Arg Lys Leu Trp Arg Ser Ser Arg Arg Ile Ser Gln Val 930 935 940

Ser Ser Gly Glu Thr Glu Tyr Asn Pro Thr Glu Ala Arg 945 950 955

<210> 552

<211> 139

<212> PRT

<213> Homo sapiens

<400> 552

Met Ala Leu Gly Ile Gln Lys Arg Phe Ser Pro Glu Val Leu Gly Leu 1 5 10 15

Cys Ala Ser Thr Ala Leu Val Trp Val Val Met Glu Val Leu Ala Leu 20 25 30

Leu Leu Gly Leu Tyr Leu Ala Thr Val Arg Ser Asp Leu Ser Thr Phe  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

```
His Leu Leu Ala Tyr Ser Gly Tyr Lys Tyr Val Gly Met Ile Leu Ser
Val Leu Thr Gly Leu Leu Phe Gly Ser Asp Gly Tyr Tyr Val Ala Leu
Ala Trp Thr Ser Ser Ala Leu Met Tyr Phe Ile Val Arg Ser Leu Arg
                 85
                                      90
Thr Ala Ala Leu Gly Pro Asp Ser Met Gly Gly Pro Val Pro Arg Gln
                                 105
Arg Leu Gln Leu Tyr Leu Thr Leu Gly Ala Ala Phe Gln Pro Leu
                            120
                                                125
Ile Ile Tyr Trp Leu Thr Phe His Leu Val Arg
<210> 553
<211> 42
<212> PRT
<213> Homo sapiens
<400> 553
Met Arg Lys Glu Glu Gly Ile Ala His Leu Ser Ile Ala Phe Phe Val
Gln Val Leu Cys Leu Tyr Gln Leu Leu Pro Val Ile Leu Pro Gln Phe
             20
                                 25
Asn Leu Gly Ser Gly Lys Asn Met Asn Arg
                             40
<210> 554
<211> 121
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (30)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (32)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
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<223> Xaa equals any of the naturally occurring L-amino acids

<222> (87)

```
<220>
<221> SITE
<222> (101)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (115)
<223> Xaa equals any of the naturally occurring Hamino acids
<400> 554
Met Cys Ser His Ser Thr Leu Ile His Leu Tyr Leu Val Leu Pro Phe
                                     10
Phe Phe Leu Phe Leu Pro Ser Ser Phe Pro Phe Pro Ser Xaa Ser Xaa
Ser Ser Ile Leu Pro Ser Leu Arg Leu Pro Pro Phe Phe Pro Pro Ser
Leu Phe Leu His Ser Ser Leu Pro Pro Ser Leu Ser His Pro Leu Gly
Leu Ser Ile Thr Ser Ser Arg Gln Ser Phe Leu Asp Tyr His His Leu
Cys Thr Lys His Leu Ser Xaa Thr Leu Cys Gly Leu Ile Tyr His Cys
Leu Asn Ile Phe Xaa Thr Arg Ala Va Met Trp His Met Gln Val Ser
                                105
Phe Leu Xaa Ile His Trp Leu Leu Pro
        115
                            120
<210> 555
<211> 71
```

<212> PRT

<213> Homo sapiens

<400> 555

Met Arg Ile His Phe Lys Ile Leu Val Leu Val Ile Tyr Phe Ile Leu

Leu Gly Ser Phe Ser Asp Arg Cys Ser Leu Leu Asp Cys Lys Ser Arg

Ile Gln Arg Ile Phe Ile Cys Asn Ile Leu Asn Leu Ser Leu Val Ser 35

Cys His Leu Cys Arg Tyr Ser Phe Asp Cys Leu Thr Arg Gly Lys Cys

Phe Pro Leu Ser Phe Pro Ala

65 70

```
<210> 556
<211> 68
<212> PRT
<213> Homo sapiens
<400> 556
Met Leu Met Leu Le
1
```

Met Leu Met Leu Leu Thr Leu Leu Val Leu Gly Met Val Trp Val Ala 1 5 10 15

Ser Ala Ile Val Asp Lys Asn Lys Ala Asn Arg Glu Se Leu Tyr Asp  $20 \hspace{1cm} 25 \hspace{1cm} 30$ 

Phe Trp Glu Tyr Tyr Leu Pro Tyr Leu Tyr Ser Cys Ile Ser Phe Leu 35 40 45

Gly Val Leu Leu Leu Ala Ala Gly Arg Pro Gly Gly Ala Ala Va $50 \hspace{1.5cm} 55 \hspace{1.5cm} 60$ 

Leu Leu Ser Leu 65

<210> 557 <211> 143 <212> PRT <213> Homo sapiens

<400> 557

Met Ser Pro Phe His Leu Leu Gly Leu Lys Val Phe Leu Thr Trp Ala 1 5 10 15

Leu Thr Leu Ala Gln Ile Cys Leu Tyr Phe Phe Glu Val Gln Pro Leu 20 25 30

Gly Leu Leu Ala Leu Asn Phe Phe Cys Thr Ala Thr Ala Gly Leu Lys  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Glu Leu Cys Met His Pro Pro Ser Leu Ala Phe Thr Pro Glu Phe His 50 55 60

Thr Ser Leu Ser Pro Leu Ala Ile Pro Ser Phe Cys Gly Thr Ser Val 65 70 75 80

Ser Leu Ser Asn Ser His Thr Ile Pro Leu Ser Leu Tyr Leu Pro Phe 85 90 95

Pro Ser Lys Ser Arg Met Pro Asp Thr Leu His Leu Leu Val His Ser 100 105 110

Leu Pro Leu Val His Ser Gln Val Leu Pro Val Lys Asp Val Thr Ile 115 120 125

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<210> 558
<211> 233
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (173)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 558
Met His Arg Gly Lys Leu Asp Cys Ala Gly Gly Ala Leu Leu Ser Ser
Tyr Leu Ile Val Leu Met Ile Leu Leu Ala Val Ile Cys Thr Val
                                25
Ser Ala Ile Met Cys Val Ser Met Arg Gly Thr Ile Cys Asn Pro Gly
Pro Arg Lys Ser Met Ser Lys Leu Leu Tyr Ile Arg Leu Ala Leu Phe
Phe Pro Glu Met Val Trp Ala Ser Leu Gly Ala Ala Trp Val Ala Asp
Gly Val Gln Cys Asp Arg Thr Val Val Asn Gly Ile Ile Ala Thr Val
Val Val Ser Trp Ile Ile Ile Ala Ala Thr Val Val Ser Ile Ile Ile
           100
Val Phe Asp Pro Leu Gly Gly Lys Met Ala Pro Tyr Ser Ser Ala Gly
                            120
Pro Ser His Leu Asp Ser His Asp Ser Ser Gln Leu Leu Asn Gly Leu
                       135
Lys Thr Ala Ala Thr Ser Val TrpGlu Thr Arg Ile Lys Leu Leu Cys
                                        155
Cys Cys Ile Gly Lys Asp Asp His Thr Arg Val Ala Xaa Ser Ser Thr
               165
```

Ala Glu Leu Phe Ser Thr Tyr Phe Ser Asp Thr Asp Leu Val Pro Ser 180 185 190

Asp Ile Ala Ala Gly Leu Ala Leu Leu His Gln Gln Asp Asn Ile

Arg Asn Asn Gln Asp Leu Pro Arg Trp SerAla Met Pro Gln Gly Ala

215

195

210

Glu Trp Pro Leu Cys Gln Arg Cys Leu Gly Ser Thr Cys His Gln

135

220

```
Pro Arg Lys Leu Ile Trp Met Gln Asn
<210> 559
<211> 66
<212> PRT
<213> Homo sapiens
<400> 559
Met Phe Val Glu Arg Trp Leu Pro Cys Phe Leu ¥1 Val Ala Val Val
Val Trp Val Phe Ala Cys Gly Pro Val Glu Asp Lys Glu Asp Ser Phe
Gly Trp Ser Ser Tyr Phe Leu Ala Ser Gly Leu Pro Po Leu Leu Phe
Glu Ala Ser Gln Thr Arg Thr Val Arg Ala Gly Arg Leu Gly Val Phe
Val Cys
65
<210> 560
<211> 113
<212> PRT
<213> Homo sapiens
<400> 560
Met Gly Ser Trp Cys Ile Cys Thr Leu Leu Leu Leu Thr Asp Gly
Gln Gln Gly Phe Tyr Pro Gln Pro Phe Gln Ala Ala Pro Gly Arg Gln
Gln Leu Trp Gly Gly Thr Asn Pro Trp Ala Val Leu Ile Pro Glu Ser
                            40
Phe Leu Pro Tyr Thr Leu Thr Val Asn Tyr Ser Pro Ser Cys Asn Phe
```

Glu Phe Tyr Leu Pro Lys Met Arg Leu Ala Tyr Ile Cys Met Ser His

Ser His Cys Pro Tyr Leu Gly Arg Asp Ile Ile Ile Thr Leu Leu Asn

Tyr Cys Ser Ser Phe Leu Ala Glu Leu Leu Ala His Leu Val Tyr Ile

105

Ala

100

110

```
<210> 561
<211> 82
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (51)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 561
Met Leu Ile Ala Leu Phe Cys Ile Leu Phe Gln Ile Leu Phe Ser Ile
Pro Thr Arg Ile Phe Tyr Ile Phe Leu Ile Asn Lys Arg Val His Ile
                                 25
Phe Thr Thr Tyr Leu Met Ser Glu Gln Lys Asn His Asp Trp Val Arg
                             40
Arg Thr Xaa Lys Leu His Arg Val Trp Leu Ile Ser Gly Lys Met Leu
Leu Val Ala Asp Ile Lys Ala Leu Ile Arg Trp Leu Trp Gly Pro Asn
Pro Glu
<210> 562
<211> 90
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (29)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (30)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (65)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 562
Met Leu Arg Cys Ser Phe Ser Ser Phe Leu Leu Cys His Thr Ile Leu
```

1 5 10 15

Leu Phe Leu Gly Ser Ser Ala His Leu Leu Val Glu Xaa Xaa Val Trp 20 25 30

Gly Leu Tyr Glu Tyr Arg Ile Gly Asp Met Val Asp Gln Lys Ala Thr \$35\$ \$40\$

Phe Cys Val Gln Lys Gln Glu Cys Leu Phe Pro Leu Gly Ser Trp Val 50 55 60

Xaa Arg Val Glu Gly Gly Ala Phe Ala Arg Glu Pro Pro Ser Ser Thr 65 70 75 80

Gln Tyr Phe Pro Val Ser Cys Leu Tyr Gln 85 90

<210> 563

<211> 36

<212> PRT

<213> Homo sapiens

<400> 563

Met Gly Cys Thr Ala Leu Leu Leu Leu Phe His Leu Cys Val Pro Cys 1 5 10 15

Glu Pro Tyr Gly Thr His Glu Lys Glu Leu Val Pro Gly Leu Tyr Phe 20 25 30

Leu Val Tyr Arg 35

<210> 564

<211> 46

<212> PRT

<213> Homo sapiens

<400> 564

Met Cys Ile Pro Glu Ala Leu Gly Lys Asn Ser Leu Phe Leu Ser Ser  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Thr Phe Leu Trp Leu Leu Ala Phe Phe Gly Leu Trp Ser His His Ser 20 25 30

Tyr Leu Glu Gly Gln His Leu Gln Ile Cys Phe Phe Thr 35 40 45

<210> 565

<211> 82

<212> PRT

<213> Homo sapiens

<400> 565

Met Ala Ile Ser Cys Trp Ala Ser Leu Thr Val Lys Ser Leu Tyr Cys 1 5 10 15

Leu Leu Gly Phe Trp Trp Glu Ala Val Ile Ser Ser Asn Glu Leu Pro 20 25 30

Leu Pro Trp Ile Cys Gln Glu Ala Asp Gly Asn Leu Ala Asn Ser Gly 35 40 45

Arg Tyr Gln Ala Pro Ser Ser Ala Pro Val Thr Leu Phe Tyr Thr Cys 50 60

Gly Ser Thr Thr Val Cys Ser Glu Gly Gln Ser Leu Pro Leu Leu Cys
65 70 75 80

Phe Ser

<210> 566

<211> 57

<212> PRT

<213> Homo sapiens

<400> 566

Met Pro Pro His Arg Gln Thr AspGly Gln Met Gly Leu Pro Ala Pro 1 5 10 15

Ala Leu Trp Val Trp Gly Leu Leu Leu Ser Ser Ser Phe Gln Thr Leu 20 25 30

Leu Pro Ala Phe Pro Lys Pro Pro AlaLeu Asn Leu Gly Cys Ser Thr 35 40 45

Arg Pro Ile Pro Ser Phe Leu Lys Ile

<210> 567

<211> 81

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (44)

<223> Xaa equals any of the naturally occurring Famino acids

<400> 567

Met Arg Met Arg Val Ala Val Ala Pro Arg Pro His Gln His Leu Val 1 5 10 15

Val Ser Val Ser Trp Ile Leu Ala Ile Leu Ile Ser Val Ser Gly Tyr

20 25 30

His Cys Phe His Leu Gln Phe Ser Tyr Met Val Xaa Asn Ile Phe Pro  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

His Val Tyr Leu Ser Ser Ala Tyr Leu Leu Arg Pro Val Ile Cys Ser 50 60

Asp Leu Leu Pro Val Phe Val Cys Leu His Val Cys Leu Cys Leu Ile 65 70 75 80

Phe

<210> 568

<211> 80

<212> PRT

<213> Homo sapiens

<400> 568

Met Cys Val Val Cys Val Cys Val Trp Cys Met Cys Val Cys Gly Val 1 1 1 15

Cys Val Cys Leu Cys Val Cys Gly Val Cys Met Cys Ile Ser Leu Asn 20 25 30

Glu Lys Leu Ala Pro Met Ile Met Glu Leu Thr Thr Pro Lys Val Cys  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Arg Gln Gln Ala Gly Gly Pro Gly Gly Pro Val Val Trp Leu Gln Pro 50 55 60

Val Ser Glu Gly Leu Arg Thr Amg Arg Ala Gly Gly Ala Ala Ala Val 65 70 75 80

<210> 569

<211> 78

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (46)

<223> Xaa equals any of the naturally occurring Lamino acids

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<220>
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<221> SITE

<222> (60)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 569

Met Met Gly Asn Asp Leu Leu His Leu Val Phe LeuGln Leu Ser Leu 1 5 10 15

Gly Val Ala Ser Gly Gly Trp Ile Leu Trp Pro Leu Arg Arg Leu Gly 20 25 30

Gly Ala His Thr Ser Lys Asp Xaa Asn Lys Asn Gly HisXaa Val His 35 40 45

Cys Leu Val Ile Thr Asn Glu Pro Leu Val Ser Xaa Lys Lys Ile Gly 50 60

Leu Ser Ser Pro His Thr Cys Pro Ser Thr Leu Gln Gln Phe
65 70 75

<210> 570

<211> 53

<212> PRT

<213> Homo sapiens

<400> 570

Met Ser Thr Phe Val Cys Val Cys Val Phe Cys Phe Val Leu Arg Ser  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Glu Ala Arg Ala Lys Arg Lys Gln Asp Gln Arg Asn Thr Lys Arg Cys 20 25 30

Leu Leu Thr Lys Gly Gln Arg Asp Leu Ser Val Asn Gln Ser Lys Ile  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Asn Arg Thr Ala Asn 50

<210> 571

<211> 80

<212> PRT

<213> Homo sapiens

<400> 571

Met Ala Leu Trp Val Thr Cys Ile Leu Ser Leu Cys Thr Trp Phe Ser 1 5 10 15

Cys Leu Tyr Gly Ala Asp Ser Leu Ala Asn Lys Cys Leu Ser Ala Gly
20 25 30

Ala Thr Arg Lys Ala Phe Pro Phe Cys Val Leu Phe Arg Asp Leu Glu 35 40 45

Val Gly Leu Gly Phe Glu Gly Phe Val Thr His Leu Ala Cys Lys Leu 50 55 60

Phe Cys Tyr Cys Glu Leu Ser Asp Ser Ala Leu Ser Leu Gly His Glu 65 70 75 80

<210> 572

<211> 320

<212> PRT

<213> Homo sapiens

<400> 572

Met Arg Gly Ser Val Glu Cys Thr Trp Gly Trp Gly His Cys Ala Pro 1 10 15

Ser Pro Leu Leu Trp Thr Leu Leu Leu Phe Ala Ala Pro Phe Gly
20 25 30

Leu Leu Gly Glu Lys Thr Arg Gln Leu Leu Glu Phe Asp Ser Thr Asn 35 40 45

Val Ser Asp Thr Ala Ala Lys Pro Leu Gly Arg Pro Tyr Pro Pro Tyr 50 55 60

Ser Leu Ala Asp Phe Ser Trp Asn Asn Ile Thr Asp Ser Leu Asp Pro 65 70 75 80

Ala Thr Leu Ser Ala Thr Phe Gln Gly His Pro Met Asn Asp Pro Thr 85 90 95

Arg Thr Phe Ala Asn Gly Ser Leu Ala Phe Arg Val Gln Ala Phe Ser 100 105 110

Arg Ser Ser Arg Pro Ala Gln Pro Pro Arg Leu Leu His Thr Ala Asp 115 120 125

Thr Cys Gln Leu Glu Val Ala Leu Ile GlyAla Ser Pro Arg Gly Asn 130 135 140

Arg Ser Leu Phe Gly Leu Glu Val Ala Thr Leu Gly Gln Gly Pro Asp 145 150 155 160

Cys Pro Ser Met Gln Glu Gln His Ser Ile Asp AspGlu Tyr Ala Pro 165 170 175

Ala Val Phe Gln Leu Asp Gln Leu Leu Trp Gly Ser Leu Pro Ser Gly
180 185 190

Phe Ala Gln Trp Arg Pro Val Ala Tyr Ser Gln Lys ProGly Gly Arg 195 200 205

- Glu Ser Ala Leu Pro Cys Gln Ala Ser Pro Leu His Pro Ala Leu Ala 210 215 220
- Tyr Ser Leu Pro Gln Ser Pro Ile Val Arg Ala Phe Phe Gly Ser Gln 225 230 235 240
- Asn Asn Phe Cys Ala Phe Asn Leu Thr Phe Gly Ala Ser Thr Gly Pro 245  $\phantom{0}250$   $\phantom{0}255$
- Gly Tyr Trp Asp Gln His Tyr Leu Ser Trp Ser Met Leu Leu Gly Val 260 265 270
- Gly Phe Pro Pro Val Asp Gly Leu Ser Pro Leu Val Leu Gly Ile Met 275 280 285
- Ala Val Ala Leu Gly Ala Pro Gly Leu Met Leu Leu Gly Gly Gly Leu 290 295 300
- Val Leu Leu His His Lys Lys Tyr Ser Glu Tyr Gln Ser Ile Asn 305 310 315

<210> 573

<211> 115

<212> PRT

<213> Homo sapiens

<400> 573

Met Leu Ala Leu Ser Ser Ser Phe Leu Val Leu Ser Tyr Leu Leu Thr 1 5 10 15

Arg Trp Cys Gly Ser Val Gly Phe Ile Leu Ala Asn Cys Phe Asn Met  $20 \\ 25 \\ 30$ 

Gly Ile Arg Ile Thr Gln Ser Leu Cys Phe Ile His Arg Tyr Tyr Arg 35 40 45

Arg Ala Pro Thr Gly Pro Trp Leu Ala Cys Thr Tyr Arg Gln Ser Cys
50 55 60

Ser Gly His Leu Pro Ser Val Val GlyLeu Leu Leu Phe Arg Arg Tyr 65 70 75 80

Ser Ser Ala Val Ser Arg Ala Gly Gln Pro Asp Trp His Thr Leu Leu 85 90 95

Trp Gly Pro Ser Val Trp Glu Gln Leu Ser Gly Gln His Ser Ser Gln 100 105 110

Arg Pro Ser 115

- <210> 574
- <211> 402
- <212> PRT
- <213> Homo sapiens
- <400> 574
- Met Tyr Ser Gly Asn Arg Ser Gly Gly His Gly Tyr Trp Asp Gly Gly
  10 15
- Gly Ala Ala Gly Ala Glu Gly Pro Ala Pro Ala Gly Thr Leu Ser Pro 20 25 30
- Ala Pro Leu Phe Ser Pro Gly Thr Tyr Glu Arg Leu Ala Leu Leu 35 40 45
- Gly Ser Ile Gly Leu Leu Gly Val Gly Asn Asn Leu Val Leu Val
  50 60
- Leu Tyr Tyr Lys Phe Gln Arg Leu Arg Thr Pro Thr His Leu Leu Leu 65 70 75 80
- Val Asn Ile Ser Leu Ser Asp Leu Leu Val Ser Leu Phe Gly Val Thr 85 90 95
- Phe Thr Phe Val Ser Cys Leu Arg Asn Gly Trp Val Trp Asp Thr Val 100 105 110
- Gly Cys Val Trp Asp Gly Phe Ser Gly Ser Leu Phe Gly Ile Val Ser 115 120 125
- Ile Ala Thr Leu Thr Val Leu Ala Tyr Glu Arg Tyr Ile Arg Val Val 130 140
- His Ala Arg Val Ile Asn Phe Ser Trp Ala Trp Arg Ala Ile Thr Tyr 145 150 155 160
- Ile Trp Leu Tyr Ser Leu Ala Trp Ala Gly Ala Pro Leu Gly Trp 165 170 175
- Asn Arg Tyr Ile Leu Asp Val His Gly Leu Gly Cys Thr Val Asp Trp 180 185 190
- Lys Ser Lys Asp Ala Asn Asp Ser Ser Phe Val Leu Phe Leu Phe Leu 195 200 205
- Gly Cys Leu Val Val Pro Leu Gly Val Ile Ala His Cys Tyr Gly His 210 215 220
- Ile Leu Tyr Ser Ile Arg Met Leu Arg Cys Val Glu Asp Leu Gln Thr 225 230 235 240
- Ile Gln Val Ile Lys Ile Leu Lys Tyr Glu Lys Lys Leu Ala Lys Met
- Cys Phe Leu Met Ile Phe Thr Phe Leu Val Cys Trp Met Pro Tyr Ile 260 265 270

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Val Ile Cys Phe Leu Val Val Asn Gly His Gly His Leu Val Thr Pro
275 280 285
```

Thr Ile Ser Ile Val Ser Tyr Leu Phe Ala Lys Ser Asn Thr Val Tyr 290 295 300

Asn Pro Val Ile Tyr Val Phe Met Ile Arg Lys Phe Arg Arg Ser Leu 305 310 315 320

Leu Gln Leu Leu Cys Leu Arg Leu Leu Arg Cys Gln Arg Pro Ala Lys 325 330 335

Asp Leu Pro Ala Ala Gly Ser Glu Met Gln Ile Arg Pro Ile Val Met 340 345 350

Ser Gln Lys Asp Gly Asp Arg Pro Lys Lys Lys Val Thr Phe Asn Ser 355 360 365

Ser Ser Ile Ile Phe Ile Ile Thr Ser Asp Glu Ser Leu Ser Val Asp 370 375 380

Asp Ser Asp Lys Thr Asn Gly Ser Lys Val Asp Val Ile Gln Val Arg 385 390 395 400

Pro Leu

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<210> 575
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<220>

<221> SITE

<222> (168)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (174)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (198)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (213)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 575

Met Arg Ala Leu Leu Ala Leu Cys Leu Leu Gly Trp Leu Arg Trp

<sup>&</sup>lt;211> 218

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Homo sapiens

1 5 10 15

Gly Pro Ala Gly Ala Gln Gln Ser Gly Glu Tyr Cys His Gly Trp Val 20 25 30

Asp Val Gln Gly Asn Tyr His Glu Gly Phe Gln Cys Pro Glu Asp Phe 35 40 45

Asp Thr Leu Asp Ala Thr Ile Cys Cys Gly Ser Cys Ala Leu Arg Tyr 50 55 60

Cys Cys Ala Ala Ala Asp Ala Arg Leu Glu Gln Gly Gly Cys Thr Asn 65 70 75 80

Asp Arg Glu Leu Glu His Pro Gly Ile Thr Ala Gln Pro Val Tyr
85 90 95

Val Pro Phe Leu Ile Val Gly Ser Ile Phe Ile Ala Phe Ile Ile Leu 100 105 110

Gly Ser Val Val Ala Ile Tyr Cys Cys Thr Cys Leu Arg Pro Lys Glu 115 120 125

Pro Ser Gln Gln Pro Ile Arg Phe Ser Leu Arg Ser Tyr Gln Thr Glu 130 135 140

Thr Leu Pro Met Ile Leu Thr Ser Thr Ser Pro Arg Ala Pro Ser Arg 145 150 155 160

Gln Ser Ser Thr Ala Thr Ser Xaa Ser Phe Thr Gly Gly Xaa Ile Arg 165 170 175

Arg Phe Phe Ser Ala Ile Trp Phe Pro Gly Val Thr Pro Val Phe Arg 180 185 190

Leu Pro Pro Ser Ala Xaa Ala Pro Thr Gly Trp Glu Glu Leu Ser Arg 195 200 205

Leu Ser Val Pro Xaa Asp Thr Pro Arg Pro 210 215

<210> 576

<211> 76

<212> PRT

<213> Homo sapiens

<400> 576

Met Gly Ala His Ser Phe Gly Phe Gln Leu Phe Met Ser Val Ser Val 1 5 10 15

Leu Trp Gly Arg Leu Cys Leu Tyr Gly Arg Phe Ser Val Ile Thr Phe 20 25 30

Ala Ser Pro Pro Thr Thr Phe Met Asp Ile Gln Cys Cys Phe Ala Leu 35 40 45

Gln Leu Glu Arg Arg Asp Gly Gln Leu Val Thr Leu Ser His Ile Ala 50 55 60

Thr Phe Ile Cys Ser Gly Lys Lys Leu Asp Arg Trp 65 70 75

<210> 577

<211> 89

<212> PRT

<213> Homo sapiens

<400> 577

Met Pro Val Pro Leu Leu Ala Ser Ala Ala Trp Cys His Leu Cys Ala 1 5 10 15

Gly Ala Leu Pro Ala Trp Leu Trp Leu Pro Trp Arg Ala Ala Ala Ala 20 25 30

Gln Trp His Val Cys Ala Ser His Cys Leu Pro Leu His Pro Ala Phe  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Ser Ala Leu Gly Pro His Pro Asp Pro Gly Arg Ala Gly Pro Gly Ala 50 55 60

Ala Pro Arg Asp Cys Ala His Pro Glu Leu His Pro Leu Cys Leu Pro 65 70 75 80

Arg Trp Ser Leu Gln Leu Leu Pro Arg 85

<210> 578

<211> 87

<212> PRT

<213> Homo sapiens

<400> 578

Met Met Thr Phe Phe Gly Ser His Ile Leu Leu Phe Leu Phe Cys Pro 1 10 15

Leu Lys Ala Gly His Arg His Leu Val Ser Ser Ser Phe Leu Thr Val 20 25 30

Ala Val Ser Ile Ser Lys Gly Pro Phe Phe His Ser Thr Ala Gln Lys 35 40 45

Arg Lys Ser Arg Lys Gln Leu Pro Arg Pro Ala Phe Leu Val Pro Leu 50 55 60

Ser Ser Gln Asn Thr Gln Thr Arg Thr Lys His His Phe Ser Phe Leu 65 70 75 80

His Leu Ile Val Leu Gln Pro

<210> 582 <211> 484

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<210> 579
<211> 41
<212> PRT
<213> Homo sapiens
<400> 579
Met Ala Val Pro Leu Phe Leu Tyr Ile Phe Thr Leu Leu Pro Leu Leu
Pro Phe Leu Leu Ser Leu Cys Phe Ser Pro Leu Thr Val Lys Arg Ser
                                25
Ser Ser Ser Glu Ser Lys Ser Ser Leu
        35
<210> 580
<211> 35
<212> PRT
<213> Homo sapiens
<400> 580
Ile Tyr Ser Ser Gly Tyr Phe Gln Ile Tyr Asn Met Leu Leu Leu Thr
Ile Leu Ile Leu Cys Asn Arg Thr Pro Glu Leu Ile Pro Gly Phe
                                 25
             20
Tyr Ile Arg
        35
<210> 581
<211> 43
<212> PRT
<213> Homo sapiens
<400> 581
Met His Met Pro Ala Ala Pro Val Thr ValLeu Lys Leu Pro Phe
                                     10
Pro Cys Val Cys Gly Leu Gly Trp Val Pro Ile Gly Cys Val Ser Ile
Pro Ser His Leu Lys Gly Asn Leu Cys Cys Ser
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- <212> PRT <213> Homo sapiens
- <400> 582
- Met Pro Arg His Leu Ser Gly Leu Leu Leu Leu Leu Trp Pro Leu Leu 1 5 10 15
- Leu Leu Pro Pro Thr Pro Ala Ala Pro Gly Pro Leu Ala Arg Pro 20 25 30
- Gly Leu Arg Arg Leu Gly Thr Arg Gly Pro Gly Gly Ser Pro Gly Arg 35 40 45
- Arg Pro Val Ser Ala Val Pro Thr Arg Ala Pro Tyr Ser Gly Ala Gly 50 55 60
- Gln Pro Gly Gly Ala Arg Gly Ala Gly Val Cys Arg Ser Arg Pro Leu 65 70 75 80
- Asp Leu Val Phe Ile Ile Asp Ser Ser Arg & Val Arg Pro Leu Glu 85 90 95
- Phe Thr Lys Val Lys Thr Phe Val Ser Gln Ile Ile Asp Thr Leu Asp 100 105 110
- Ile Gly Ala Ala Asp Thr Arg Val Ala Val Val An Tyr Ala Ser Thr 115 120 125
- Val Lys Ile Glu Phe His Leu Gln Thr His Ser Asp Lys Gln Ser Leu 130 135 140
- Lys Gln Ala Val Ala Arg Ile Thr Pro Leu Ser Thr Gly Thr Met Ser 145 150 155
- Gly Leu Ala Ile Gln Thr Ala Met Asp Glu Ala Phe Thr Val Glu Ala 165 170 175
- Gly Ala Arg Gly Pro Thr Ser Asn Ile Pro Lys Val Ala Ile Ile M 180 185
- Thr Asp Gly Arg Pro Gln Asp Gln Val Asn Glu Val Ala Ala Arg Ala 195 200 205
- Arg Ala Ser Gly Ile Glu Leu Tyr Ala Val Gly Val Asp Arg Ala Asp 210 220
- Met Glu Ser Leu Lys Met Met Ala Ser Glu Pro Leu Asp Glu His Val 225 230 235 240
- Phe Tyr Val Glu Thr Tyr Gly Val Ile Glu Lys Leu Ser Ser Arg Phe 245 250 255
- Gln Glu Thr Phe Cys Ala Leu Asp Pro Cys Val Leu Gly Thr His Arg 260 265 270
- Cys Gln His Val Cys Val Ser Asp Gly Glu Gly Lys His His Cys Glu 275 280 285

Cys Ser Gln Gly Tyr Ser Leu Asn Ala Asp Gln Lys Thr Cys Ser Ala 290 295 300

Ile Asp Lys Cys Ala Leu Asn Thr His Gly Cys Glu His Ile Cys Val 305 310 315 320

Asn Asp Arg Thr Gly Ser Tyr His Cys Glu Cys Tyr Glu Gly Tyr Thr 325 330 335

Leu Asn Gln Asp Arg Lys Thr Cys Ser Ala Gln Asp Gln Cys Ala Phe 340 345 350

Gly Thr His Gly Cys Gln His Ile Cys Val Asn Asp Arg Asp Gly Ser 355 360 365

His His Cys Glu Cys Tyr Glu Gly Tyr Thr Leu Asn Ala Asp Asn Lys 370 375 380

Thr Cys Ser Val Arg Ser Glu Cys Ala Gly Gly Ser His Gly Cys Gln 385 390 395 400

His Leu Cys Val Asp Asp Gly Pro Ala Ala Tyr His Cys Asp Cys Phe \$405\$

Pro Gly Tyr Thr Leu Thr Glu Asp Arg Arg Thr Cys Ala Ala Ile Glu 420  $\phantom{0000}$  425  $\phantom{0000}$  430

Glu Ala Arg Arg Leu Val Ser Thr Glu Asp Ala Cys Gly Cys Glu Ala 435 440 445

Thr Leu Ala Phe Gln Glu Arg Ala Ser Ser Tyr Leu Gln Arg Leu Asn 450 455 460

Ala Lys Leu Asp Asp Ile Leu Gly Lys Leu Gln Ala Asp Ala Tyr Gly 465 470 475 480

Gln Ile His Arg

<210> 583

<211> 184

<212> PRT

<213> Homo sapiens

<400> 583

Met Ser Arg Thr Ala Tyr Thr Val Gly Ala Leu Leu Leu Leu Gly
1 5 10 15

Thr Leu Leu Pro Ala Ala Glu Gly Lys Lys Lys Gly &r Gln Gly Ala 20 25 30

Ile Pro Pro Pro Asp Lys Ala Gln His Asn Asp Ser Glu Gln Thr Gln 35 40 45

```
Ser Pro Gln Gln Pro Gly Ser Arg Asn Arg Gly Arg Gly Gln Gly Ag 50 55 60
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Gly Thr Ala Met Pro Gly Glu Glu Val Leu Glu Ser Ser Gln Glu Ala 65 70 75 80

Leu His Val Thr Glu Arg Lys Tyr Leu Lys Arg Asp Trp Cys Lys Thr 85 90 95

Gln Pro Leu Lys Gln Thr Ile His Glu Glu Gly Cys Asn Ser Arg Thr 100 105 110

Ile Ile Asn Arg Phe Cys Tyr Gly Gln Cys Asn Ser Phe Tyr Ile Pro 115 120 125

Arg His Ile Arg Lys Glu Glu Gly Ser Phe Gln Ser Cys Ser Phe Cys 130 135 140

Lys Pro Lys Lys Phe Thr Thr Met Met Val Thr Leu Asn Cys Pro Glu 145 150 155

Leu Gln Pro Pro Thr Lys Lys Lys Arg Val Thr Arg Val Lys Gln Cys 165 170 175

Arg Cys Ile Ser Ile Asp Leu Asp 180

<210> 584

<211> 164

<212> PRT

<213> Homo sapiens

<400> 584

Met Thr Thr Trp Ser Cys Leu Val Ala Met Ile Val Ser Gly Val Ile 1 5 10 15

Thr Ala Val Trp Ala Val Arg Ala Ala Pro Ile Trp Arg Ser Gln Val 20 25 30

Lys Gln Lys Met Arg Ile Gly Lys Gln Gly Asn Cys Arg Pro Pro Arg 35 40 45

Cys Ile Cys Ser Ala Leu Gly Leu Leu Ala Pro Trp Met Ala Val Val 50 60

Leu Ser Gln Leu Ser Val Arg Cys Val Val Ser Trp Val Gln Gly Lys
65 70 75 80

Pro Ser Ser Pro Arg Pro Arg Gly Ser Ala Ala Ser Pro Ala Pro Gly  $85 \hspace{1cm} 90 \hspace{1cm} 95$ 

Ala Thr Pro Pro Thr Pro Arg Lys Pro Val Ser Trp Leu Gly Tyr Arg 100 105 110

Glu Asn His Arg Pro Lys Lys Pro Lys Ser Cys Thr Arg Leu Pro Gly

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115 120 125
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Leu Pro Lys Leu Glu Pro Ser Ser Thr Leu Lys Gly Gln Asp Ser Trp 130 135 140

Gln Met Gly His Gln Gln Asp Lys Thr Leu Trp Ser Trp Ala Ser Thr 145 150 155 160

Gly Gly Ser Ser

<210> 585

<211> 56

<212> PRT

<213> Homo sapiens

<400> 585

Met Pro Leu Glu Glu Ser Phe Glu Ile Val Leu Lys Leu Val Pro Leu 1 5 10 15

Leu Gly Leu Glu Leu Phe Phe Phe Leu Phe IleIle Asn Gly Tyr Ile
20 25 30

Asn Val Tyr Cys Pro Ser Gln Tyr Phe Ile Tyr Ala Lys Asp Ser Leu  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Ala Gly Leu Ala Leu Ile Pro Gln
50 55

<210> 586

<211> 40

<212> PRT

<213> Homo sapiens

<400> 586

Met Val Ala Met Val Phe Leu Lys Ile Ser Val Leu Pro Leu Met Cys 1 5 10 15

Arg Gly Gln Thr Lys His Lys Val Leu Arg Asp His  $\Delta$ a Tyr Pro Arg 20 25 30

Val Ser Gln Lys Arg Gly His Ile 35 40

<210> 587

<211> 967

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

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<222> (40)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (45)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (169)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (293)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (297)
<223> Xaa equals any of the naturally occurring bamino acids
<220>
<221> SITE
<222> (547)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 587
Met Gln Arg Ala Val Pro Glu Gly Phe Gly Arg Arg Lys Leu Gly Ser
Asp Met Gly Asn Ala Glu Arg Ala Pro Gly Ser Arg Ser Phe Gly Pro
             20
Val Pro Thr Leu Leu Leu Xaa Ala Ala Leu Leu Xaa Val Ser Asp
                             4.0
Ala Leu Gly Arg Pro Ser Glu Glu Asp Glu Glu Leu Val Val Pro Glu
Leu Glu Arg Ala Pro Gly His Gly Thr Thr Arg Leu Arg Leu His Ala
                                         75
Phe Asp Gln Gln Leu Asp Leu Glu Leu Arg Pro Asp Ser Ser Phe Leu
Ala Pro Gly Phe Thr Leu Gln Asn Val Gly Arg Lys Ser Gly Ser Glu
Thr Pro Leu Pro Glu Thr Asp Leu Ala His Cys Phe Tyr Ser Gly Thr
Val Asn Gly Asp Pro Ser Ser Ala Ala Ala Leu Ser Leu Cys Glu Gly
                                             140
                        135
Val Arg Gly Ala Phe Tyr Leu Leu Gly Glu Ala Tyr Phe Ile Gln Pro
```

Leu Pro Ala Ala Ser Glu Arg Leu Xaa Thr Ala Ala Pro Gly Glu Lys 165 170 175

Pro Pro Ala Pro Leu Gln Phe His Leu Leu Arg Arg Asn Arg Gln Gly 180 185 190

Asp Val Gly Gly Thr Cys Gly Val Val Asp Asp Glu Pro Arg Pro Thr 195 200 205

Gly Lys Ala Glu Thr Glu Asp Glu Asp Glu Gly Thr Glu Gly Glu Asp 210 215 220

Glu Gly Pro Gln Trp Ser Pro Gln Asp Pp Ala Leu Gln Gly Val Gly 225 230 235 240

Gln Pro Thr Gly Thr Gly Ser Ile Arg Lys Lys Arg Phe Val Ser Ser 245 250 255

His Arg Tyr Val Glu Thr Met Leu Val Ala Asp Gln Ser Met Ala Glu 260 265 270

Phe His Gly Ser Gly Leu Lys His Tyr Leu Leu Thr Leu Phe Ser Val 275 280 285

Ala Ala Arg Leu Xaa Lys His Pro Xaa Ile Arg An Ser Val Ser Leu 290 295 300

Val Val Lys Ile Leu Val Ile His Asp Glu Gln Lys Gly Pro Glu 305 310 315

Val Thr Ser Asn Ala Ala Leu Thr Leu Arg Asn Phe Cys As Trp Gln \$325\$ \$330 \$335

Lys Gln His Asn Pro Pro Ser Asp Arg Asp Ala Glu His Tyr Asp Thr 340 345 350

Ala Ile Leu Phe Thr Arg Gln Asp Leu Cys Gly Ser Gln Thr C $_{\mathbf{y}}$  Asp 355 360 365

Thr Leu Gly Met Ala Asp Val Gly Thr Val Cys Asp Pro Ser Arg Ser 370 380

Cys Ser Val Ile Glu Asp Asp Gly Leu Gln Ala Ala Phe Thr Thr Ala 385 390 395 400

Cys Ala Ser Leu Asn Gly Val Asn Gln Asp Ser His Met Met Ala Ser 420 425 430

Met Leu Ser Asn Leu Asp His Ser Gln Pro Trp Ser Pro Cys Ser Ala 435 440 445

Tyr Met Ile Thr Ser Phe Leu Asp Asn Gly His Gly Glu Cys Leu Met

450 455 460

Asp Lys Pro Gln Asn Pro Ile Gln Leu Pro Gly Asp Leu Pro Gly Thr 475 Ser Tyr Asp Ala Asn Arg Gln Cys Gln Phe Thr Phe Gly Glu Asp Ser 490 Lys His Cys Pro Asp Ala Ala Ser Thr Cys Ser Thr Leu Trp Cys Thr 505 Gly Thr Ser Gly Gly Val Leu Val Cys Gln Thr Lys His Phe Pro Trp Ala Asp Gly Thr Ser Cys Gly Glu Gly Lys Trp Cys Ile Asn Gly Lys 535 Cys Val Xaa Lys Thr Asp Arg Lys His Phe Asp Thr Pro Phe His Gly Ser Trp Gly Met Trp Gly Pro Trp Gly Asp Cys Ser Arg Thr Cys Gly Gly Gly Val Gln Tyr Thr Met Arg Glu Cys Asp Asn Pro Val Pro Lys 585 Asn Gly Gly Lys Tyr Cys Glu Gly Lys Arg Val Arg Tyr Arg Ser Cys Asn Leu Glu Asp Cys Pro Asp Asn Asn Gly Lys Thr Phe Arg Glu Glu 615 Gln Cys Glu Ala His Asn Glu Phe Ser Lys Ala Ser Phe Gly Ser Gly 630 Pro Ala Val Glu Trp Ile Pro Lys Tyr Ala Gly Val Ser Pro Lys Asp 650 Arg Cys Lys Leu Ile Cys Gln Ala Lys Gly Ile Gly Tyr Phe Phe Val Leu Gln Pro Lys Val Val Asp Gly Thr Pro Cys Ser Pro Asp Ser Thr Ser Val Cys Val Gln Gly Gln Cys Val Lys Ala Gly Cys Asp Arg Ile 695 Ile Asp Ser Lys Lys Lys Phe Asp Lys Cys Gly Val Cys Gly Asn Gly Ser Thr Cys Lys Lys Ile Ser Gly Ser Val Thr Ser Ala Lys Pro Gly Tyr His Asp Ile Ile Thr Ile Pro Thr Gly Ala Thr Asn Ile Glu

Val Lys Gln Arg Asn Gln Arg Gly Ser Arg Asn Asn Gly Ser Phe Leu

755 760 765 Ala Ile Lys Ala Ala Asp Gly Thr Tyr Ile Leu Asn Gly Asp Tyr Thr 775 Leu Ser Thr Leu Glu Gln Asp Ile Met Tyr Lys Gly Va Val Leu Arg 790 795 Tyr Ser Gly Ser Ser Ala Ala Leu Glu Arg Ile Arg Ser Phe Ser Pro 810 Leu Lys Glu Pro Leu Thr Ile Gln Val Leu Thr Và Gly Asn Ala Leu 825 Arg Pro Lys Ile Lys Tyr Thr Tyr Phe Val Lys Lys Lys Glu Ser 840 Phe Asn Ala Ile Pro Thr Phe Ser Ala Trp Val Ile Glu Glu Tpm Gly Glu Cys Ser Lys Ser Cys Glu Leu Gly Trp Gln Arg Arg Leu Val Glu Cys Arg Asp Ile Asn Gly Gln Pro Ala Ser Glu Cys Ala Lys Glu Val Lys Pro Ala Ser Thr Arg Pro Cys Ala Asp His Pro Cys Pro Gln Trp Gln Leu Gly Glu Trp Ser Ser Cys Ser Lys Thr Cys Gly Lys Gly Tyr Lys Lys Arg Ser Leu Lys Cys Leu Ser His Asp Gly Val Leu Ser 930 935 His Glu Ser Cys Asp Pro Leu Lys Lys Pro Lys His Phe Ile Asp Phe 955 Cys Thr Met Ala Glu Cys Ser 965

<210> 588

<211> 41

<212> PRT

<213> Homo sapiens

<400> 588

Met Cys Val Cys Leu Ile Cys Ser Ile Cys Gln Phe Leu Trp Cys Lys
1 10 15

Tyr Ser His Tyr Ser Cys Phe Gln Ala Asn Ile Val Ile Pro Gln Lys 20 25 30

Met Glu Leu Gly Arg His Asn Gln Asp

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<210> 589
<211> 211
<212> PRT
<213> Homo sapiens
<400> 589
Met Val Phe Leu Lys Phe Phe Cys Met Ser Phe Phe Cys His Leu Cys
Gln Gly Tyr Phe Asp Gly Pro Leu Tyr Pro Glu Met Ser Asn Gly Thr
Leu His His Tyr Phe Val Pro Asp Gly Asp Tyr Glu Glu Asn Asp Asp
Pro Glu Lys Cys Gln Leu Leu Phe Arg Val Ser Asp His Arg Arg Cys
Ser Gln Gly Glu Gly Ser Gln Val Gly Ser Leu Leu Ser Leu Thr Leu
Arg Glu Glu Phe Thr Val Leu Gly His Gln Val Glu Asp Ala Gly Arg
Val Leu Glu Gly Ile Ser Lys Ser Ile Ser Tyr Asp Leu Asp Gly Glu
                                105
Glu Ser Tyr Gly Lys Tyr Leu Arg Arg Glu Ser His Gln Ile Gly Asp
Ala Tyr Ser Asn Ser Asp Lys Ser Leu Thr Glu Leu Glu Ser Lys Phe
                        135
Lys Gln Gly Gln Glu Gln Asp Ser Arg Gln Glu Ser Arg Leu Asn Glu
145
                    150
                                        155
Asp Phe Leu Gly Met Leu Val His Thr Arg Ser Leu Leu Lys Glu Thr
                165
                                    170
Leu Asp Ile Ser Val Gly Leu Arg Asp Lys Tyr Glu Leu Leu Ala Leu
Thr Ile Arg Ser His Gly Thr Arg Leu Gly Arg Leu Lys Asn Asp Tyr
                            200
                                                 205
```

<210> 590 <211> 53

Leu Lys Val 210

<212> PRT

<213> Homo sapiens

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<220>
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<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring Famino acids

<400> 590

Met Ser His His Ala Gly Leu Gly Gly Gly Ile Leu Phe Ser Leu Lys  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Ile Ser Phe Phe Ile Ala Leu Ala Val Val Gly Gly Ser Arg Gly Val 20 25 30

Asn Asp Cys Gln Leu Gly Gly Cys Arg Val Gly Ser Cys Pro Arg Val 35 40 45

Xaa Val Arg Val Ala 50

<210> 591

<211> 48

<212> PRT

<213> Homo sapiens

<400> 591

Met Met Leu Tyr Gln Asn Met Leu Leu Tyr Phe Arg Ile Ile Gly Val  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Leu Ala Leu Asn Phe Ser Ile Ser Pro Ile Phe Phe His Gly Ser Leu 20 25 30

Gly Lys Leu Tyr Val Tyr Ser Ala Ala Lys Tyr Ser Leu Glu Leu Lys 35 40 45

<210> 592

<211> 80

<212> PRT

<213> Homo sapiens

<400> 592

Met Phe Asp Arg Cys Arg Val Thr Ser Cys Ser Cys Thr Cys Gly Ala  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Gly Ala Lys Trp Cys Thr His Val Val Ala Leu Cys Leu Phe Arg Ile 20 25 30

His Asn Ala Ser Ala Val Cys Leu Arg Ala Pro Val Se Glu Ser Leu 35 40 45

Ser Arg Leu Gln Arg Asp Gln Leu Gln Lys Phe Ala Gln Tyr Leu Ile

50 55 60

Ser Glu Leu Pro Gln Gln Val Gly Glu Val Gly Thr Pro Ser Cys Asn 65 70 75 80

<210> 593

<211> 201

<212> PRT

<213> Homo sapiens

<400> 593

Met Lys Leu Ieu Ile Leu Phe Leu Ser His Leu Leu Ser Leu Ala Phe  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Gly Ile Leu Cys Leu Ser Val Thr Val Ile Leu Ser Leu Leu Ser 20 25 30

Phe Ser Lys Arg Gly Phe Ser Val Arg Ser Phe Gly Thr Gly Thr His  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Val Lys Leu Pro Gly Pro Ala Pro Asp Lys Pro Asn Val Tyr Asp Phe 50 55 60

Lys Thr Thr Tyr Asp Gln Met Tyr Asn Asp Leu Leu Arg Lys Asp Lys 65 70 75 80

Glu Leu Tyr Thr Gln Asn Gly Ile Leu His Met Leu Asp Arg Asn Lys 85 90 95

Arg Ile Lys Pro Arg Pro Glu Arg Phe Gln Asn Cys Lys Asp Leu Phe 100 105 110

Asp Leu Ile Leu Thr Cys Glu Glu Arg Val Tyr Asp Gln Val Val Glu 115 120 125

Asp Leu Asn Ser Arg Glu Gln Glu Thr Cys Gln Pro Val His Val Val 130 140

Asn Val Asp Ile Gln Asp Asn His Glu Glu Ala Thr Leu Gly Ala Phe 145 150 155 160

Leu Ile Cys Glu Leu Cys Gln Cys Ile Gln His Thr Glu Asp Met Glu 165 170 175

Asn Glu Ile Asp Glu Leu Leu Gh Glu Phe Glu Glu Lys Ser Gly Arg 180 185 190

Thr Phe Leu His Thr Val Cys Phe Tyr 195 200

```
<210> 594
```

<211> 420

<212> PRT

<213> Homo sapiens

<400> 594

Met Ala Pro Trp Pro Pro Lys Gly Leu Val Pro Ala Val Leu Trp Gly
1 5 10 15

Leu Ser Leu Phe Leu Asn Leu Pro Gly Pro Ile Trp Leu Gln Pro Ser 20 25 30

Pro Pro Pro Gln Ser Ser Pro Pro Pro Gln Pro His Pro Cys His Thr 35 40 45

Cys Arg Gly Leu Val Asp Ser Phe Asn Lys Gly Leu Glu Arg Thr Ile 50 55 60

Arg Asp Asn Phe Gly Gly Gly Asn Thr Ala TrpGlu Glu Glu Asn Leu 65 70 75 80

Ser Lys Tyr Lys Asp Ser Glu Thr Arg Leu Val Glu Val Leu Glu Gly
85 90 95

Val Cys Ser Lys Ser Asp Phe Glu Cys HisArg Leu Leu Glu Leu Ser 100 105 110

Glu Glu Leu Val Glu Ser Trp Trp Phe His Lys Gln Gln Glu Ala Pro 115 120 125

Asp Leu Phe Gln Trp Leu Cys Ser Asp Ser Leu Lys LeuCys Cys Pro 130 135 140

Ala Gly Thr Phe Gly Pro Ser Cys Leu Pro Cys Pro Gly Gly Thr Glu 145 150 155 160

Arg Pro Cys Gly Gly Tyr Gly Gln Cys Glu Gly Glu Gly Thr ArgGly
165 170 175

Gly Ser Gly His Cys Asp Cys Gln Ala Gly Tyr Gly Glu Ala Cys 180 185 190

Gly Gln Cys Gly Leu Gly Tyr Phe Glu Ala Glu Arg Asn Ala Ser His 195 200 205

Leu Val Cys Ser Ala Cys Phe Gly Pro Cys Ala Arg Cys Ser Gly Pro 210 215 220

Glu Glu Ser Asn Cys Leu Gln Cys Lys Lys Gly Trp Ala Leu His His 225 230 235 240

Leu Lys Cys Val Asp Ile Asp Glu Cys Gly Thr Glu Gly Ala Asn Cys 245 250 255

Gly Ala Asp Gln Phe Cys Val Asn Thr Glu Gly Ser Tyr Glu Cys Arg 260 265 270 Asp Cys Ala Lys Ala Cys Leu Gly Cys Met Gly Ala Gly Pro Gly Arg 275 280 285

Cys Lys Lys Cys Ser Pro Gly Tyr Gln Gln Val Gly Ser Lys Cys Leu 290 295 300

Asp Val Asp Glu Cys Glu Thr Glu Val Cys Pro Gly Glu Asn Lys Gln 305 310 315

Cys Glu Asn Thr Glu Gly Gly Tyr Arg Cys Ile Cys Ala Glu Gly Tyr 325 330 335

Lys Gln Met Glu Gly Ile Cys Val Lys Glu Gln Ile Pro Glu Ser Ala 340 345 350

Gly Phe Phe Ser Glu Met Thr Glu Asp Glu Leu Val Val Leu Gln Gln 355 360 365

Met Phe Phe Gly Ile Ile Ile Cys Ala Leu Ala Thr Leu Ala Ala Lys  $370 \hspace{1.5cm} 375 \hspace{1.5cm} 380$ 

Gly Asp Leu Val Phe Thr Ala Ile Phe Ile Gly Ala Val Ala Ala Met 385 390 395 400

Thr Gly Tyr Trp Leu Ser Glu Arg Ser Asp Arg Val Leu Glu Gly Phe 405 410 415

Ile Lys Gly Arg 420

<210> 595

<211> 102

<212> PRT

<213> Homo sapiens

<400> 595

Met Thr Val Arg Arg Leu Ser Leu Leu Cys Arg Asp Leu Trp Ala Leu  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Trp Leu Leu Lys Ala Gly Ala Val Arg Gly Ala Arg Ala Gly Pro 20 25 30

Arg Leu Pro Gly Arg Cys Cys Gly Ala Thr Cys Gly Asp Ala Gly Arg 35 40 45

Gly Trp Thr Phe Trp Ala Gln Pro Cys Pro Gln Arg Leu Leu Gly Gln 50 60

Lys Pro Gly Ala Gly Gly Cys Arg GlyTrp Val Leu Gly Trp Val Pro 65 70 75 80

Pro Arg Pro Glu Glu Pro Cys Ser Leu Ala Gly Lys Val Cys Thr Gly 85 90 95

Leu Ala Arg Trp Met Val

100

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<210> 596
<211> 53
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 596
Met Cys Lys Ala Val Cys Lys His Arg Leu Xaa Leu Phe Ala Val Ser
Ser Phe Ser Leu Gly Leu Gly Trp Val Cys Val Leu Val Leu Met Leu
                                 25
Trp Pro Val Arg Leu Ser Leu Ala Pro Arg Pro Val Gln Leu Gln Gln
Arg Arg Ser His Cys
     50
<210> 597
<211> 472
<212> PRT
<213> Homo sapiens
<400> 597
Met Lys Phe Leu Ile Phe Ala Phe Phe Gly Gly Val His Leu Leu Ser
Leu Cys Ser Gly Lys Ala Ile Cys Lys Asn Gly Ile Ser Lys Arg Thr
                                 25
                                                      30
Phe Glu Glu Ile Lys Glu Glu Ile Ala Ser Cys Gly Asp Val Ala Lys
Ala Ile Ile Asn Leu Ala Val Tyr Gly Lys Ala Gln Asn Arg Ser Tyr
Glu Arg Leu Ala Leu Leu Val Asp Thr Val Gly Pro Arg Leu Ser Gly
Ser Lys Asn Leu Glu Lys Ala Ile Gln Ile Met Tyr Gln Asn Leu Gln
Gln Asp Gly Leu Glu Lys Val His Leu Glu Pro Val Arg Ile Pro His
Trp Glu Arg Gly Glu Glu Ser Ala Val Met Leu Glu Pro Arg Ile His
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		115					120					125			
Lys	Ile 130	Ala	Ile	Leu	Gly	Leu 135	Gly	Ser	Ser	Ile	Gly 140		Pro	Pro	Glu
Gly 145	Ile	Thr	Ala	Glu	Val 150	Leu	Val	Val	Thr	Ser 155		Asp	Glu	Leu	Gln 160
Arg	Arg	Ala	Ser	Glu 165	Ala	Arg	Gly	Lys	Ile 170		Val	Tyr	Asn	Gln 175	
Tyr	Ile	Asn	Tyr 180	Ser	Arg	Thr	Val	Gln 185	Tyr	Arg	Thr	Gln	Gly 190	Ala	Val
Glu	Ala	Ala 195	Lys	Val	Gly	Ala	Leu 200	Ala	Ser	Leu	Ile	Arg 205		Val	Ala
Ser	Phe 210	Ser	Ile	Tyr	Ser	Pro 215	His	Thr	Gly	Ile	Gln 220		Tyr	Gln	Asp
Gly 225	Val	Pro	Lys	Ile	Pro 230	Thr	Ala	Cys	Ile	Thr 235		Glu	Asp	Ala	Glu 240
Met	Met	Ser	Arg	Met 245	Ala	Ser	His	Gly	Ile 250	Lys	Ile	Val	Ile	Gln 255	
Lys	Met	Gly	Ala 260	Lys	Thr	Tyr	Pro	Asp 265	Thr	Asp	Ser	Phe	Asn 270	Thr	Val
Ala	Glu	Ile 275	Thr	Gly	Ser	Lys	Tyr 280	Pro	Glu	Gln	Val	Val 285		Val	Ser
Gly	His 290	Leu	Asp	Ser	Trp	Asp 295	Val	Gly	Gln	Gly	Ala 300		Asp	Asp	Gly
Gly 305	Gly	Ala	Phe	Ile	Ser 310	Trp	Glu	Ala	Leu	Ser 315	Leu	Ile	Lys	Asp	Leu 320
Gly	Leu	Arg	Pro	Lys 325	Arg	Thr	Leu	Arg	Leu 330	Val	Leu	Trp	Thr	Ala 335	
Glu	Gln	Gly	Gly 340	Val	Gly	Ala	Phe	Gln 345	Tyr	Tyr	Gln	Leu	His 350	Lys	Val
Asn	Ile	Ser 355	Asn	Tyr	Ser	Leu	Val 360	Met	Glu	Ser	Asp	Ala 365		Thr	Phe
Leu	Pro 370	Thr	Gly	Leu	Gln	Phe 375	Thr	Gly	Ser	Glu	Lys 380	Ala	Arg	Ala	Ile
Met 385	Glu	Glu	Val	Met	Ser 390	Leu	Leu	Gln	Pro	Leu 395	Asn	Ile	Thr	Gln	Val 400
Leu	Ser	His	Gly	Glu 405	Gly	Thr	Asp	Ile	Asn 410	Phe	Trp	Ile	Gln	Ala 415	Gly
Val	Pro	Gly	Ala	Ser	Leu	Leu	Asp	Asp	Leu	Tyr	Lys	Tyr	Phe	Phe	Phe

420 425 430

His His Ser His Gly Asp Thr Met Thr Val Met Asp Pro Lys Gln Met 435  $\phantom{0}440$   $\phantom{0}445$ 

Asn Val Ala Ala Ala Val Trp Ala Val Val Ser Tyr Val Val Ala Asp 450 460

Met Glu Glu Met Leu Pro Arg Ser 465 470

<210> 598

<211> 359

<212> PRT

<213> Homo sapiens

<400> 598

Met Lys Leu Gly Cys Val Leu Met Ala Trp Ala Leu Tyr Leu Ser Leu 1 5 10 15

Gly Val Leu Trp Val Ala Gln Met Leu Leu Ala Ala Ser Phe Glu Thr 20 25 30

Leu Gln Cys Glu Gly Pro Val Cys Thr Glu Glu Ser Ser Cys His Thr 35 40 45

Glu Asp Asp Leu Thr Asp Ala Arg Glu Ala Gly Phe Gln Val Lys Ala 50 60

Tyr Thr Phe Ser Glu Pro Phe His Leu Ile Val Ser Tyr Asp Trp Leu 65 70 75 80

Ile Leu Gln Gly Pro Ala Lys Pro Val Phe Glu Gly Asp Leu Leu Val 85 90 95

Leu Arg Cys Gln Ala Trp Gln Asp Trp Pro Leu Thr Gln Val Thr Phe 100 105 110

Tyr Arg Asp Gly Ser Ala Leu Gly Pro Pro Gly Pro Asn Arg Glu Phe 115 120 125

Ser Ile Thr Val Val Gln Lys Ala Asp Ser Gly His Tyr His Cys Ser 130 135 140

Gly Ile Phe Gln Ser Pro Gly Pro Gly Ile Pro Glu Thr Ala Ser Val 145 150 155 160

Val Ala Ile Thr Val Gln Glu Leu Phe Pro Ala Pro Ile Leu Arg Ala 165 170 175

Val Pro Ser Ala Glu Pro Gln Ala Gly Gly Pro Met Thr Leu Ser Cys 180 185 190

Gln Thr Lys Leu Pro Leu Gln Arg Ser Ala Ala Arg Leu Leu Phe Ser 195 200 205

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Phe Tyr Lys Asp Gly Arg Ile Val Gln Ser Arg Gly Leu Ser Ser Glu
Phe Gln Ile Pro Thr Ala Ser Glu Asp His SerGly Ser Tyr Trp Cys
                    230
                                         235
Glu Ala Ala Thr Glu Asp Asn Gln Val Trp Lys Gln Ser Pro Gln Leu
                245
                                     250
Glu Ile Arg Val Gln Gly Ala Ser Ser SerAla Ala Pro Pro Thr Leu
                                 265
Asn Pro Ala Pro Gln Lys Ser Ala Ala Pro Gly Thr Ala Pro Glu Glu
                             280
                                                 285
Ala Pro Gly Pro Leu Pro Pro Pro Pro Thr Pro Ser SerGlu Asp Pro
                        295
Gly Phe Ser Ser Pro Leu Gly Met Pro Asp Pro His Leu Tyr His Gln
Met Gly Leu Leu Lys His Met Gln Asp Val Arg Val Leu LeuGly
                                     330
His Leu Leu Met Glu Leu Arg Glu Leu Ser Gly His Arg Lys Pro Gly
Thr Thr Lys Ala Thr Ala Glu
        355
<210> 599
<211> 379
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (283)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (303)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (307)
<223> Xaa equals any of the naturally occurring Lamino acids
Met Gly Tyr Ile Asp Asp Pro Asp Lys Tyr His Gln Gly Phe Glu Leu
```

- Leu Leu Ser Ala Leu Gly Asp Pro Ser Glu Ag Val Val Ser Ala Thr 20 25 30
- His Gln Val Phe Leu Pro Ala Tyr Ala Ala Trp Thr Thr Glu Leu Gly  $35 \hspace{1cm} 40 \hspace{1cm} 45$
- Asn Leu Gln Ser His Leu Ile Leu Thr Leu Leu Asn Lys I $\stackrel{\clubsuit}{=}$  Glu Lys 50 55 60
- Leu Leu Arg Glu Gly Glu His Gly Leu Asp Glu His Lys Leu His Met 65 70 75 80
- Tyr Leu Ser Ala Leu Gln Ser Leu Ile Pro Ser Leu Phe Ala Leu Va 85 90 95
- Leu Gln Asn Ala Pro Phe Ser Ser Lys Ala Lys Leu His Gly Glu Val 100 105 110
- Pro Gln Ile Glu Val Thr Arg Phe Pro Arg Pro Met Ser Pro Leu Gln 115 120 125
- Asp Val Ser Thr Ile Ile Gly Ser Arg Glu Gln Leu Ala Val Leu Leu 130 135 140
- Gln Leu Tyr Asp Tyr Gln Leu Glu Gln Glu Gly Thr Thr Gly Trp Glu 145 150 155 160
- Ser Leu Leu Trp Val Val Asn Gln Leu Leu Pro Gln Leu Ile Glu Ile 165 170 175
- Val Gly Lys Ile Asn Val Thr Ser Thr Ala Cys Val His Glu Phe Ser 180 185 190
- Arg Phe Phe Trp Arg Leu Cys Arg Thr Phe Gly Lys Ile Phe Thr Asn 195 200 205
- Thr Lys Val Lys Pro Gln Phe Gln Glu Ile Leu Arg Leu Ser Glu Glu 210 215 220
- Asn Ile Asp Ser Ser Ala Gly Asn Gly Val Leu Thr Lys Ala Thr Val 225 230 235 240
- Pro Ile Tyr Ala Thr Gly Val Leu Thr Cys Tyr Ile Gln Glu Glu Asp 245 250 255
- Arg Lys Leu Val Gly Phe Leu Glu Asp Val Met Thr Leu Leu Ser 260 265 270
- Leu Ser His Ala Pro Leu Asp Ser Leu Lys Xaa Ser Phe Val Glu Leu 275 280 285
- Gly Ala Asn Gln Ala Tyr His Glu Leu Leu Leu Thr Val Leu Xaa Tyr 290 295 300
- Gly Val Xaa His Thr Ser Ala Leu Val Arg Cys Thr Ala Ala Arg Met 305 310 315 230

Phe Glu Leu Val Lys Gly Val Asn Glu Thr Leu Val Ala Gln Arg 325 330 335

Val Val Pro Ala Leu Ile Thr Leu Ser Ser Asp Pro Glu Ile Ser Val 340 345 350

Arg Ile Ala Thr Ile Pro Ala Phe Gly Thr Ile Met Glu Thr Val Ile 355 360 365

Gln Arg Glu Leu Leu Glu Arg Val Lys Met Gln 370 375

<210> 600

<211> 48

<212> PRT

<213> Homo sapiens

<400> 600

Met Ser Thr Val Thr Trp Leu Leu Lys Leu Phe Thr Gln Phe Met Phe  $1 \hspace{1cm} 5 \hspace{1cm} 15$ 

Pro Pro Thr Val Ser Asn Ser His Thr Cys Ala Arg Tyr Tyr Val Phe 20 25 30

Asn Phe Cys Leu Ile Ile Ser Phe Asn Phe Asn Phe His Tyr His Trp 35 40 45

<210> 601

<211> 142

<212> PRT

<213> Homo sapiens

<400> 601

Met Gly Cys Leu Val Trp Gly Pro Ser Trp Pro Pro LeuSer Leu Leu  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Ala Ser Leu Leu His Ser Gly Ile Ala Gly Arg Cys Leu Leu Cys Leu 20 25 30

Ser Arg Leu Thr Thr Gly Pro Arg Thr Cys Arg Val Gln Pro Pro 50 60

His Pro Gln Ser Ser Pro Pro Trp Pro Gly Pro Pro Gly Ala Glu Thr
65 70 75 80

Cys Arg Pro Leu Ser Arg Thr Val Gly Gly Val Cys Pro Ser Asp Trp 85 90 95 Pro Val Ser Trp Leu Leu Leu Pro Pro Leu Pro Glu Val Val Thr Cys 100 105 110

Ser Cys Pro Arg Ile Lys Ala Arg Pro Glu Arg Thr Pro Glu Leu Leu 115 120 125

Cys Ala Trp Gly Gly Arg Gly Lys His Ser Gln Leu Val Ala 130 135 140

<210> 602

<211> 399

<212> PRT

<213> Homo sapiens

<400> 602

Met Gly Ile Leu Leu Gly Leu Leu Leu Gly His Leu Thr Val Asp 1 5 10 15

Thr Tyr Gly Arg Pro Ile Leu Glu Val Pro Glu Ser Val Thr Gly Pro 20 25 30

Trp Lys Gly Asp Val Asn Leu Pro Cys Thr Tyr Asp Pro Leu Gln Gly 35 40

Tyr Thr Gln Val Leu Val Lys Trp Leu Val Gln Ærg Gly Ser Asp Pro 50 60

Val Thr Ile Phe Leu Arg Asp Ser Ser Gly Asp His Ile Gln Gln Ala 65 70 75 80

Lys Tyr Gln Gly Arg Leu His Val Ser His Lys Val Pro Gy Asp Val 85 90 95

Ser Leu Gln Leu Ser Thr Leu Glu Met Asp Asp Arg Ser His Tyr Thr 100 105 110

Cys Glu Val Thr Trp Gln Thr Pro Asp Gly Asn Gln Val Val Asp 115 120 125

Lys Ile Thr Glu Leu Arg Val Gln Lys Leu Ser Val Ser Lys Pro Thr 130 140

Val Thr Thr Gly Ser Gly Tyr Gly Phe Thr Val Pro Gln Gly Met Arg 145 150 155 160

Ile Ser Leu Gln Cys Gln Ala Arg Gly Ser Pro Pro Ile Ser Tyr Ile 165 170 175

Trp Tyr Lys Gln Gln Thr Asn Asn Gln Glu Pro Ile Lys Val Ala Thr 180 185 190

Leu Ser Thr Leu Leu Phe Lys Pro Ala Val Ile Ala Asp Ser Gly Ser 195 200 205

Tyr Phe Cys Thr Ala Lys Gly Gln Val Gly Ser Glu Gln His Ser Asp 215 Ile Val Lys Phe Val Val Lys Asp Ser Ser Lys Leu Leu Lys Thr Lys 235 Thr Glu Ala Pro Thr Thr Met Thr Tyr Pro Leu Lys Ala Thr Ser Thr Val Lys Gln Ser Trp Asp Trp Thr Thr Asp Met Asp Gly Tyr Leu Gly 265 Glu Thr Ser Ala Gly Pro Gly Lys Ser Leu Pro Val Phe Ala Ile Ile 280 Leu Ile Ile Ser Leu Cys Cys Met Val Val Phe Thr Met Ala Tyr Ile 295 Met Leu Cys Arg Lys Thr Ser Gln Gln Glu His Val Tyr Glu Ala Ala 315 Arg Ala His Ala Arg Glu Ala Asn Asp Ser Gly Glu Thr Met Arg Val Ala Ile Phe Ala Ser Gly Cys Ser Ser Asp Glu Pro Thr Ser Gln Asn 345 Leu Gly Asn Asn Tyr Ser Asp Glu Pro Cys Ile Gly Gln Glu Tyr Gln Ile Ile Ala Gln Ile Asn Gly Asn Tyr Ala Arg Leu Leu Asp Thr Val 370 375 Pro Leu Asp Tyr Glu Phe Leu Ala Thr Glu Gly Lys Ser Val Cys 385 390 395

<210> 603

<211> 223

<212> PRT

<213> Homo sapiens

<400> 603

Met Lys Phe Val Pro Cys Leu Leu Leu Val Thr Leu Ser Cys Leu Gly  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Thr Leu Gly Gln Ala Pro Arg Gln Lys Gln Gly Ser Thr Gly Glu Glu 20 25 30

Phe His Phe Gln Thr Gly Gly Arg Asp Ser Cys Thr Met Arg Pro Ser 35 40 45

Ser Leu Gly Gln Gly Ala Gly Glu Val Trp Leu Arg Val Asp Cys Arg 50 55 60

Asn Thr Asp Gln Thr Tyr Trp Cys Glu Tyr Arg Gly Gln Pro Ser Met

Cys Gln Ala Phe Ala Ala Asp Pro Lys Ser Tyr Trp Asn Gln Ala Leu 85 90 95

Gln Glu Leu Arg Arg Leu His His Ala Cys Gln Gly Ala Pro Val Leu 100 105 110

Arg Pro Ser Val Cys Arg Glu Ala Gly Pro Gln Ala His Met Gln Gln 115 120 125

Val Thr Ser Ser Leu Lys Gly Ser Pro Glu Pro Asn Gln Gln Pro Glu 130 135 140

Ala Gly Thr Pro Ser Leu Arg Pro Lys Ala Thr Val Lys Leu Thr Glu 145 150 155 160

Ala Thr Gln Leu Gly Lys Asp Ser Met Glu Glu Leu Gly Lys Ala Lys 165 170 175

Pro Thr Thr Arg Pro Thr Ala Lys Pro Thr Gln Pro Gly Pro Arg Pro 180 185 190

Gly Gly Asn Glu Glu Ala Lys Lys Lys Ala Trp Glu His Cys Trp Lys 195 200 205

Pro Phe Gln Ala Leu Cys Ala Phe Leu Ile Ser Phe Phe Arg Gly 210 215 220

<210> 604

<211> 152

<212> PRT

<213> Homo sapiens

<400> 604

Met Leu Val Val Cys Leu Leu Leu Ala Thr Gly Phe Cys Leu Phe Arg
1 5 10 15

Gly Leu Ile Ala Leu Asp Cys Pro Ser Glu Leu Cys Arg Leu Tyr Thr 20 25 30

Gln Phe Gln Glu Pro Tyr Leu Lys Asp Pro Ala Ala Tyr Pro Lys Ile .35 40 45

Gln Met Leu Ala Tyr Met Phe Tyr Ser Val Pro Tyr Phe Val Thr Ala 50 60

Leu Tyr Gly Leu Val Val Pro Gly Cys Ser Trp Met Pro Asp Ile Thr 65 70 % 80

Leu Ile His Ala Gly Gly Leu Ala Gln Ala Gln Phe Ser His Ile Gly
85 90 95

Ala Ser Leu His Ala Arg Thr Ala Tyr Val Tyr Arg Val Pro Glu Glu 100 105 110 Ala Lys Ile Leu Phe Leu Ala Leu Asn Ile Ala Tyr Gly Val Leu Pro 115 120 125

Gln Leu Leu Ala Tyr Arg Cys Ile Tyr Lys Pro Glu Phe Phe Ile Lys 130 135 140

Thr Lys Ala Glu Glu Lys Val Glu 145 150

<210> 605

<211> 40

<212> PRT

<213> Homo sapiens

<400> 605

Met Ser Val Leu Ser Gly Phe Leu Phe Ile Val Val Val Cys Cys Tyr
1 5 10 15

Cys Cys Phe Val Ala Arg Leu Gln Leu Thr Lys Tyr Glu Phe Lys Asn 20 25 30

Cys Val Val Ile Phe Arg Asp Leu 35 40

<210> 606

<211> 135

<212> PRT

<213> Homo sapiens

<400> 606

Met Gly Leu Trp Leu Gly Met Leu Ala Cys Val Phe Leu Ala Thr Ala 1 5 10 15

Ala Phe Val Ala Tyr Thr Ala Arg Leu Asp Trp Lys Leu Ala Ala Glu 20 25 30

Glu Ala Lys Lys His Ser Gly Arg Gln Gln Gln Arg Ala Glu Ser 35 40 45

Thr Ala Thr Arg Pro Gly Pro Glu Lys Ala Val Leu Ser Ser Val Ala 50 60

Thr Gly Ser Ser Pro Gly Ile Thr Leu Thr Thr Tyr Ser Arg Ser Glu 65 70 75 80

Cys His Val Asp Phe Phe Arg Thr Pro Glu Glu Ala His Ala Leu Ser 85 90 95

Ala Pro Thr Ser Arg Leu Ser Val Lys Gln Leu Val Ile Arg Arg Gly
100 105 110

Ala Ala Leu Gly Ala Ala Ser Ala Thr Leu Met Val Gly Leu Thr Val

115 120 125

Arg Ile Leu Ala Thr Arg His 130 135

<210> 607

<211> 72

<212> PRT

<213> Homo sapiens

<400> 607

Met Ala Thr Ile Leu Leu Lys Leu Pro Ile Leu Ser Ala Met Ile Lys 1 5 10 15

Lys Pro Leu Arg Asn Tyr Leu Lys Thr Ser Glu Thr Thr Met Glu Lys 20 25 30

Ile Ile Ile Gln Lys Leu Val Ala Asn Leu Lys Phe Leu Pro Leu Gly 35 40 45

Thr Leu Gln Leu Ala Met Met Ile Ala Asn Leu Ile Lys Lys Leu Phe 50 60

Phe Pro Leu Val Lys Ala Ala Lys

<210> 608

<211> 58

<212> PRT

<213> Homo sapiens

<400> 608

Met Arg Thr Phe Leu Thr Phe Val Ile Leu Ly Val Ile Leu Ile Phe 1 5 10 15

Leu Ser Ser Cys Ala Ser Phe Thr Arg Asn Leu Leu Thr Trp Pro Asn
20 25 30

Asp Val Ser Thr Glu Gln Phe Glu Thr Arg Pro Ph Gly Ser Glu Leu 35 40 45

Leu Gln Thr Val Ile Asn Val Ser Arg Thr 50 55

<210> 609

<211> 182

<212> PRT

<213> Homo sapiens

<400> 609

Met Trp Arg Pro Ser Val Leu Leu Leu Leu Leu Leu Leu Arg His Gly

1 5 10 15

Ala Gln Gly Lys Pro Ser Pro Asp Ala Gly Pro His Gly Gln Gly Arg
20 25 30

Val His Gln Ala Ala Pro Leu Ser Asp Ala ProHis Asp Asp Ala His  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Gly Asn Phe Gln Tyr Asp His Glu Ala Phe Leu Gly Arg Glu Val Ala 50 60

Lys Glu Phe Asp Gln Leu Thr Pro Glu Glu Ser Gln Ala Arg Leu Gly 65 70 75 80

Arg Ile Val Asp Arg Met Asp Arg Ala Gly Asp Gly Asp Gly Trp Val 85 90 95

Ser Leu Ala Glu Leu Arg Ala Trp Ile Ala His Thr Gln Gln ArgHis 100 105 110

Ile Arg Asp Ser Val Ser Ala Ala Trp Asp Thr Tyr Asp Thr Asp Arg 115 120 125

Asp Gly Arg Val Gly Trp Glu Glu Leu Arg Asn Ala Thr Tyr Gly His 130 135 140

Tyr Ala Pro Gly Glu Glu Phe His Asp Val Glu Asp Ala Glu Thr Tyr 145 150 155 160

Lys Lys Met Leu Ala Arg Asp Glu Arg Arg Phe Arg Val Ala Asp Glu 165 170 175

Asp Gly Asp Ser Met Ala 180

<210> 610

<211> 950

<212> PRT

<213> Homo sapiens

<400> 610

Met Thr Trp Arg Met Gly Pro Arg Phe Thr Met Leu Leu Ala Met Trp  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Leu Val Cys Gly Ser Glu Pro His Pro His Ala Thr Ile Arg Gly Ser 20 25 30

His Gly Gly Arg Lys Val Pro Leu Val Ser Pro Asp Ser Ser Arg Pro 35 40 45

Ala Arg Phe Leu Arg His Thr Gly Arg Ser Arg Gly Ile Glu Arg Ser 50 60

Thr Leu Glu Glu Pro Asn Leu Gln Pro Leu Gln Arg Arg Arg Ser Val 65 70 75 80

- Pro Val Leu Arg Leu Ala Arg Pro Thr Glu Pro Pro Ala Arg Ser Asp 85 90 95

  Ile Asn Gly Ala Ala Val Arg Pro Glu Gln Arg Pro Ala Ala Arg Gly 100 110
- Ser Pro Arg Glu Met Ile Arg Asp Glu Gly Ser Ser Ala Arg Ser Arg 115 120 125
- Met Leu Arg Phe Pro Ser Gly Ser Ser Ser Pro Asn Ile Leu Ala Ser 130 135 140
- Phe Ala Gly Lys Asn Arg Val Trp Val Ile Ser Ala Pro His Ala Ser 145 150 155 160
- Glu Gly Tyr Tyr Arg Leu Met Met Ser Leu Leu Lys Asp Asp Val Tyr 165 170 175
- Cys Glu Leu Ala Glu Arg His Ile Gln Gln Ile Val Leu Phe His Gln
  180 185 190
- Ala Gly Glu Glu Gly Gly Lys Val Arg Arg Ile Thr Ser Glu Gly Gln
  195 200 205
- Ile Leu Glu Gln Pro Leu Asp Pro Ser Leu Ile Pro Lys Leu Met Ser 210 215 220
- Phe Leu Lys Leu Glu Lys Gly Lys Phe Gly Met Val Leu Leu Lys Lys 225 230 235 240
- Thr Leu Gln Val Glu Glu Arg Tyr Pro Tyr Pro Val Arg Leu Glu Ala 245 250 255
- Met Tyr Glu Val Ile Asp Gln Gly Pro Ile Arg Arg Ile Glu Lys Ile 260 265 270
- Arg Gln Lys Gly Phe Val Gln Lys Cys Lys Ala Ser Gly Val Glu Gly 275 280 285
- Gln Val Val Ala Glu Gly Asn Asp Gly Gly Gly Gly Ala Gly Arg Pro 290 295 300
- Ser Leu Gly Ser Glu Lys Lys Lys Glu Asp Pro ArgArg Ala Gln Val 305 310 315 320
- Pro Pro Thr Arg Glu Ser Arg Val Lys Val Leu Arg Lys Leu Ala Ala 325 330 335
- Thr Ala Pro Ala Leu Pro Gln Pro Pro Ser Thr<br/>Pro Arg Ala Thr Thr  $340 \hspace{1cm} 345 \hspace{1cm} 350 \hspace{1cm}$
- Leu Pro Pro Ala Pro Ala Thr Thr Val Thr Arg Ser Thr Ser Arg Ala 355 360 365
- Val Thr Val Ala Ala Arg Pro Met Thr Thr Thr Ala Phe ProThr Thr 370 380

Gln Arg Pro Trp Thr Pro Ser Pro Ser His Arg Pro Pro Thr Thr 395 Glu Val Ile Thr Ala Arg Arg Pro Ser Val Ser Glu Asn Leu Tyr Pro 410 Pro Ser Arg Lys Asp Gln His Arg Glu Arg Pro Gln Thr Thr Arg Arg Pro Ser Lys Ala Thr Ser Leu Glu Ser Phe Thr Asn Ala Pro Pro Thr 440 Thr Ile Ser Glu Pro Ser Thr Arg Ala Ala Gly Pro Gly Arg Phe Arg 455 Asp Asn Arg Met Asp Arg Arg Glu His Gly His Arg Asp Pro Asn Val 475 Val Pro Gly Pro Pro Lys Pro Ala Lys Glu Lys Pro Pro Lys Lys Ala Gln Asp Lys Ile Leu Ser Asn Glu Tyr Glu Glu Lys Tyr Asp Leu 505 Ser Arg Pro Thr Ala Ser Gln Leu Glu Asp Glu Leu Gln Val Gly Asn Val Pro Leu Lys Lys Ala Lys Glu Ser Lys Lys His Glu Lys Leu Glu Lys Pro Glu Lys Glu Lys Lys Lys Met Lys Asn Glu Asn Ala Asp Lys Leu Leu Lys Ser Glu Lys Gln Met Lys Lys Ser Glu Lys Lys Ser 565 Lys Gln Glu Lys Glu Lys Ser Lys Lys Lys Gly Gly Lys Thr Glu Gln Asp Gly Tyr Gln Lys Pro Thr Asn Lys His Phe Thr Gln Ser Pro Lys Lys Ser Val Ala Asp Leu Leu Gly Ser Phe Glu Gly Lys Arg Arg 615 Leu Leu Ile Thr Ala Pro Lys Ala Glu Asn Asn Met Tyr Val Gln Gln Arg Asp Glu Tyr Leu Glu Ser Phe Cys Lys Met Ala Thr Arg Lys 650 Ile Ser Val Ile Thr Ile Phe Gly Pro Val Asn Asn Ser Thr Met Lys 660 Ile Asp His Phe Gln Leu Asp Asn Glu Lys Pro Met Arg Val Val Asp 675 680 685

Asp Glu Asp Leu Val Asp Gln Arg Leu Ile Ser Glu Leu Arg Lys Glu 690 695 700

Tyr Gly Met Thr Tyr Asn Asp Phe Phe Met Val Leu Thr Asp Val Asp 705 710 715 720

Leu Arg Val Lys Gln Tyr Tyr Glu Val Pro Ile Thr Met Lys Ser Val 725 730 735

Phe Asp Leu Ile Asp Thr Phe Gln Ser Arg Ile Lys Asp Met Glu Lys 740 745 750

Gln Lys Lys Glu Gly Ile Val Cys Lys Glu Asp Lys Lys Gln Ser Leu 755 760 765

Glu Asn Phe Leu Ser Arg Phe Arg Trp Arg Arg Arg Leu Leu Val Ile 770 780

Ser Ala Pro Asn Asp Glu Asp Trp Ala Tyr Ser Gln Gln Leu Ser Ala 785 790 795 800

Leu Ser Gly Gln Ala Cys Asn Phe GlyLeu Arg His Ile Thr Ile Leu 805 810 815

Lys Leu Gly Val Gly Glu Glu Val Gly Gly Val Leu Glu Leu Phe 820 825 830

Pro Ile Asn Gly Ser Ser Val Val Glu ArgGlu Asp Val Pro Ala His 835 840 845

Leu Val Lys Asp Ile Arg Asn Tyr Phe Gln Val Ser Pro Glu Tyr Phe 850 860

Ser Met Leu Leu Val Gly Lys Asp Gly Asn Val Lys Ser Trp TyrPro 865 870 875 880

Ser Pro Met Trp Ser Met Val Ile Val Tyr Asp Leu Ile Asp Ser Met 885 890 895

Gln Leu Arg Arg Gln Glu Met Ala Ile Gln Gln Ser Leu GlyMet Arg 900 905 910

Cys Pro Glu Asp Glu Tyr Ala Gly Tyr Gly Tyr His Ser Tyr His Gln 915 920 925

Gly Tyr Gln Asp Gly Tyr Gln Asp Asp Tyr Arg His His Glu Ser Tyr 930 935 940

His His Gly Tyr Pro Tyr 945 950

<210> 611

<211> 260

<212> PRT

## <213> Homo sapiens

<400> 611

Met Leu Ala Leu Leu Gly Leu Ser Gln Ala Leu Asn Ile Leu Leu Gly
1 5 10 15

Leu Lys Gly Leu Ala Pro Ala Glu Ile Ser Ala Val Cys Glu Lys Gly
20 25 30

Asn Phe Asn Val Ala His Gly Leu Ala Trp Ser Tyr Tyr Ile Gly Tyr  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Leu Arg Leu Ile Leu Pro Glu Leu Gln Ala Arg Ile Arg Thr Tyr Asn 50 55 60

Gln His Tyr Asn Asn Leu Leu Arg Gly Ala Val Ser Gln Arg Leu Tyr 65 70 75 80

Ile Leu Leu Pro Leu Asp Cys Gly Val Pro Asp Asn Leu Ser Met Ala 85 90 95

Asp Pro Asn Ile Arg Phe Leu Asp Lys Leu Pro Gln Gln Thr Gly Asp 100 105 110

Arg Ala Gly Ile Lys Asp Arg Val Tyr Ser Asn Ser Ile Tyr Glu Leu 115 120 125

Leu Glu Asn Gly Gln Arg Ala Gly Thr Cys Val Leu Glu Tyr Ala Thr 130 135 140

Pro Leu Gln Thr Leu Phe Ala Met Ser Gln Tyr Ser Gln Ala Gly Phe 145 150 155 160

Ser Gly Glu Asp Arg Leu Glu Gln Ala Lys Leu Phe Cys Arg Thr Leu 165 170 175

Glu Asp Ile Leu Ala Asp Ala Pro Glu Ser Gln Asn Asn Cys Arg Leu 180 185 190

Ile Ala Tyr Gln Glu Pro Ala Asp Asp Ser Ser Phe Ser Leu Ser Gln 195 200 205

Glu Val Leu Arg His Leu Arg Gln Glu Glu Lys Glu Glu Val Thr Val 210  $\,$  220  $\,$ 

Gly Ser Leu Lys Thr Ser Ala Val Pro Ser Thr Ser Thr Met Ser Gln 225 230 235 240

Glu Pro Glu Leu Ieu Ile Ser Gly Met Glu Lys Pro Leu Pro Leu Arg 245 250 255

Thr Asp Phe Ser 260

<210> 612

<211> 85

<212> PRT

<213> Homo sapiens

<400> 612

Met Gly Cys Arg Gly Asn Lys Leu Phe ValLeu Ser Tyr Cys Thr Cys  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Leu Thr Trp Leu Leu Gly Thr Lys Ser Gln Lys Asn Pro Phe Gln Val $20 \hspace{1cm} 25 \hspace{1cm} 30$ 

Cys Met Ser Gly Gly Trp Ala Val Ser Arg Leu Glu Th<br/>r Gly Phe Gln  $35 \,$  40  $\,$  45

Ala Leu His Asp Gly Arg Ala Ser Ser Pro Leu Ser Ala Ala Cys Val 50 60

Leu Asp Arg Thr Val Ala Arg Arg Trp Lys Pro Pro Ser Val Pro Leu 65 70 75 80

Ala His His Thr Lys

<210> 613

<211> 35

<212> PRT

<213> Homo sapiens

<400> 613

Met Pro Leu Pro Ser Ser Phe Pro Leu Pro Val Phe Leu Ser Ser Cys  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Pro Phe Leu Met Ser Val Ser Ile Gly Phe Leu Ile Leu Val Phe Asn 20 25 30

Val His Pro 35

<210> 614

<211> 55

<212> PRT

<213> Homo sapiens

<400> 614

Met Val Asn Ile Phe Gly Phe Val Ser Cys Ile Val Phe Arg Cys Ser 1 5 10 15

Cys Ser Ala Leu Leu His Glu Ser Asn His Arg Pro Tyr Leu Asn Lys 20 25 30

Trp Ser Leu Leu Ser Thr Asn Lys Thr Leu Phe Arg Asn Asn Arg Gly  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

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<210> 615
<211> 78
<212> PRT
<213> Homo sapiens
<400> 615
Met Val Cys Phe Gln Ser Asn Lys Pro Ser Thr Ser Thr Trp Arg Gln
Leu Ser Phe Val Phe Val Leu Phe Cys Leu Phe Cys Leu Gly His Ala
                                  25
Phe Leu Ser Leu Pro Phe Tyr Ile Leu Ser Ile Ile Ala Met Cys Leu
                             40
Glu Gln Trp Ala Phe His Asn Met Asn Ser Leu Tyr His His Glu Trp
Glu Val Arg Gly Asn Leu Ile His Val Asp Phe Thr Leu Pro
                     7.0
<210> 616
<211> 41
<212> PRT
<213> Homo sapiens
<400> 616
Met Asn Leu Met Val Arg Leu Leu Ala Leu Gly Leu Ile Ser Gly Met
                                     10
Met Ser Asn Ile Thr Gln Ser His Ser Ser Lys Ile Ser Ala Phe Gly
             20
                                  25
                                                      30
Ile Phe Ile Gly Pro Glu Gln Phe Leu
         35
<210> 617
<211> 56
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (32)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 617
Met Leu Ser Phe Phe Ile Cys Leu Leu Ile Phe Val His Leu Leu
```

Leu Asp Leu Val Leu Val Cys

50

1 5 10 15

Leu Ser Phe Leu Ile Ser Asp Trp Pro Pro Pro Thr Gly Ser Ala Xaa 20 25 30

His Lys Ile Leu Arg Leu Met Val Val Gln Arg Leu Ser Leu Leu Asp 35 40 45

Gln Arg Lys Arg Trp Ser Glu Ala 50 55

<210> 618

<211> 90

<212> PRT

<213> Homo sapiens

<400> 618

Met Ala Ile Arg Leu Val Phe Leu Ala Leu Ala Gly Leu Val Asp Gly
1 5 10 5

Lys Pro Val Trp Ile Thr Leu Trp Met Asp Ala Lys Arg Pro Asn Leu 20 25 30

Ala Gly Thr Gly Ser Thr Trp Gly Ser Arg Arg Asp Ser His Cys Cys 35 40 45

His Gly Pro Thr Ala Trp Ser Leu Pro Cys Leu Leu Cys Leu Phe Arg
50 55 60

Ala Gln Gln Lys Asp Arg Glu Arg Ser Leu Leu Gly Val Pro Leu Pro 65 70 75 80

Thr Leu Gln Gly Gly Asn Leu Ser Asp Gly 85 90

<210> 619

<211> 57

<212> PRT

<213> Homo sapiens

<400> 619

Met Cys Glu Gly Trp Leu His Pro Ile Phe Leu Tyr Cys Cys Phe Trp
1 5 10 15

Thr Thr Pro Ser Cys Ser Ala Phe Gly Ile Leu Asp Leu His Gln  $20 \hspace{1cm} 25 \hspace{1cm} 30$ 

Gln His Pro Ile Pro Thr Pro Ser Ser Trp Phe Ser Gly Leu Cys Pro 35 40 45

Trp Thr Glu Leu His His Cys Leu Arg

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<210> 620
<211> 434
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (381)
<223> Xaa equals any of the naturally occurring Hamino acids
<400> 620
Met Ala Leu Thr Ala Pro Ser Leu Ser Leu Asp Ala Arg Gln Leu Trp
Asp Ser Pro Glu Thr Ala Pro Ala Ala Arg Thr Pro Gln Ser Pro Ala
                                 25
Pro Cys Val Leu Leu Arg Ala Gln Arg Ser Leu Ala Pro Glu Pro Lys
Glu Pro Leu Ile Pro Ala Ser Pro Lys Ala Glu Pro Ile Trp Glu Leu
Pro Thr Arg Ala Pro Arg Leu Ser Ile Gly Asp Bu Asp Phe Ser Asp
Leu Gly Glu Asp Glu Asp Gln Asp Met Leu Asn Val Glu Ser Val Glu
Ala Gly Lys Asp Ile Pro Ala Pro Ser Pro Pro Leu Pro Leu Ser
Gly Val Pro Pro Pro Pro Leu Pro Pro Pro Pro Ile Lys Gly
        115
                            120
Pro Phe Pro Pro Pro Pro Leu Pro Leu Ala Ala Pro &u Pro His
                        135
Ser Val Pro Asp Ser Ser Ala Leu Pro Thr Lys Arg Lys Thr Val Lys
145
                    150
                                        155
                                                            160
Leu Phe Trp Arg Glu Leu Lys Leu Ala Gly Gly His Gly Val Ser Aa
Ser Arg Phe Gly Pro Cys Ala Thr Leu Trp Ala Ser Leu Asp Pro Val
Ser Val Asp Thr Ala Arg Leu Glu His Leu Phe Glu Ser Arg Ala Lys
                            200
Glu Val Leu Pro Ser Lys Lys Ala Gly Glu Gly Arg Arg Thr Met Thr
   210
Thr Val Leu Asp Pro Lys Arg Ser Asn Ala Ile Asn Ile Gly Leu Thr
```

235

225

Thr Leu Pro Pro Val His Val Ile Lys Ala Ala Leu Leu Asn Phe Asp 245 250 255

Glu Phe Ala Val Ser Lys Asp Gly Ile Glu Lys Leu Leu Thr Met Met 260 265 270

Pro Thr Glu Glu Glu Arg Gln Lys Ile Glu Glu Ala Gln Leu Ala Asn 275 280 285

Pro Asp Ile Pro Leu Gly Pro Ala Glu Asn Phe Leu Met Thr Leu Ala 290 295 300

Ser Ile Gly Gly Leu Ala Ala Arg Leu Gln Leu Trp Ala Phe Lys Leu 305 310 315 320

Asp Tyr Asp Ser Met Glu Arg Glu Ile Ala Glu Pro Leu Phe Asp Leu 325 330 335

Lys Val Gly Met Glu Gln Leu Val Gln Asn Ala Thr Phe Arg Cys Ile 340 345 350

Leu Ala Thr Leu Leu Ala Val Gly Asn Phe Leu Asn Gly Ser Gln Ser 355 360 365

Ser Gly Phe Glu Leu Ser Tyr Leu Glu Lys Val Ser Xaa Val Lys Asp  $370 \hspace{1cm} 375 \hspace{1cm} 380$ 

Thr Val Arg Arg Gln Ser Leu Leu His His Leu Cys Ser Leu Val Leu 385 390 395 400

Gln Thr Arg Pro Glu Ser Ser Asp Leu Tyr Ser Glu Ile Pro Ala Leu 405 410 415

Thr Arg Cys Ala Lys Val Ser Thr Cys Gln Asn Gln Pro Arg Pro Asp 420 425 430

Lys Ala

<210> 621

<211> 305

<212> PRT

<213> Homo sapiens

<400> 621

Met Ala Ala Gly Leu Ala Arg Leu Leu Leu Leu Leu Gly Leu Ser Ala 1 5 10 15

Gly Gly Pro Ala Pro Ala Gly Ala Ala Lys Met Lys Val Val Glu Glu 20 25 30

Pro Asn Ala Phe Gly Val Asn Asn Pro Phe Leu Pro Gln Ala Ser Arg 35 40 45 Leu Gln Ala Lys Arg Asp Pro Ser Pro Val Ser Gly Pro W1 His Leu Phe Arg Leu Ser Gly Lys Cys Phe Ser Leu Val Glu Ser Thr Tyr Lys Tyr Glu Phe Cys Pro Phe His Asn Val Thr Gln His Glu Gln Thr Re Arg Trp Asn Ala Tyr Ser Gly Ile Leu Gly Ile Trp His Glu Trp Glu 105 Ile Ala Asn Asn Thr Phe Thr Gly Met Trp Met Arg Asp Gly Asp Ala 120 Cys Arg Ser Arg Ser Arg Gln Ser Lys Val Glu Leu Ala Cys Gly Lys 135 Ser Asn Arg Leu Ala His Val Ser Glu Pro Ser Thr Cys Val Tyr Ala Leu Thr Phe Glu Thr Pro Leu Val Cys His Pro His Ala Leu Leu Val Tyr Pro Thr Leu Pro Glu Ala Leu Gln Arg Gln Trp Asp Gln Val Glu Gln Asp Leu Ala Asp Glu Leu Ile Thr Pro Gln Gly His Glu Lys Leu 200 Leu Arg Thr Leu Phe Glu Asp Ala Gly Tyr Leu Lys Thr Pro Glu Glu 215 210 Asn Glu Pro Thr Gln Leu Glu Gly Gly Pro Asp Ser Leu Gly Phe Glu Thr Leu Glu Asn Cys Arg Lys Ala His Lys Glu Leu Ser Lys Glu Ile Lys Arg Leu Lys Gly Leu Leu Thr Gln His Gly Ile Pro Tyr Thr Arg 265 Pro Thr Glu Thr Ser Asn Leu Glu His Leu Gly His Glu Thr Pro Arg 280 Ala Lys Ser Pro Glu Gln Leu Arg Gly Asp Pro Gly Leu Arg Gly Ser 295

Leu 305

<sup>&</sup>lt;210> 622

<sup>&</sup>lt;211> 364

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Homo sapiens

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<220>
<221> SITE
<222> (20)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 622
Met Pro Gly Cys Pro Cys Pro Gly Cys Gly Met Ala Gly Pro Arg Leu
Leu Phe Leu Xaa Ala Leu Ala Leu Glu Leu Leu Gly Arg Ala Gly Gly
                                 25
Ser Gln Pro Ala Leu Arg Ser Arg Gly Thr Ala Thr Ala Cys Arg Leu
Asp Asn Lys Glu Ser Glu Ser Trp Gly Ala Leu Leu Ser Gly Glu Arg
                        5.5
Leu Asp Thr Trp Ile Cys Ser Leu Leu Gly Ser Leu Met Val Gly Leu
Ser Gly Val Phe Pro Leu Leu Val Ile Pro Leu Glu Met Gly Thr Met
Leu Arg Ser Glu Ala Gly Ala Trp Arg Leu Lys Gln Leu Leu Ser Phe
Ala Leu Gly Gly Leu Leu Gly Asn Val Phe Leu His Leu Leu Pro Glu
Ala Trp Ala Tyr Thr Cys Ser Ala Ser Pro Gly Gly Glu Gly Gln Ser
Leu Gln Gln Gln Gln Leu Gly Leu Trp Val Ile Ala Gly Ile Leu
145
                    150
                                        155
Thr Phe Leu Ala Leu Glu Lys Met Phe Leu Asp Ser Lys Glu Glu Gly
                                    170
Thr Ser Gln Ala Pro Asn Lys Asp Pro Thr Ala Ala Ala Ala Leu
                                185
Asn Gly Gly His Cys Leu Ala Gln Pro Ala Ala Glu Pro Gly Leu Gly
Ala Val Val Arg Ser Ile Lys Val Ser Gly Tyr Leu Asn Leu Leu Ala
                        215
Asn Thr Ile Asp Asn Phe Thr His Gly Leu Ala Val Ala Ala Ser Phe
                    230
                                        235
Leu Val Ser Lys Lys Ile Gly Leu Leu Thr Thr Met Ala Ile Leu Leu
                245
His Glu Ile Pro His Glu Val Gly Asp Phe Ala Ile Leu Leu Arg Ala
```

265

260

- Gly Phe Asp Arg Trp Ser Ala Ala Lys Leu Gln Leu Ser Thr Ala Leu 275 280 285
- Gly Gly Leu Leu Gly Ala Gly Phe Ala Ile Cys Thr Gln Ser Pro Lys 290 295 300
- Gly Val Glu Glu Thr Ala Ala Trp Val Leu Pro Phe Thr Ser Gly Gly 305 310 315
- Phe Leu Tyr Ile Ala Leu Val As<br/>n Val Leu Pro Asp Leu Leu Glu Glu 325 330 335
- Glu Asp Pro Trp Arg Ser Leu Gln Gln Leu Leu Leu Leu Cys Ala Gly 340 345 350
- Ile Val Val Met Val Leu Phe Ser Leu Phe Val Asp 355 360
- <210> 623
- <211> 282
- <212> PRT
- <213> Homo sapiens
- <400> 623
- Met Leu Ala Leu Thr Leu Ala Lys Ala Asp Ser Pro Arg Thr Ala Leu 1 5 10 15
- Leu Cys Ser Ala Trp Leu Leu Thr Ala Ser Phe Ser Ala Gln Gln His
- Lys Gly Ser Leu Gln Val His Gln Thr Leu Ser Val Glu Met Asp Gln 35 40 45
- Val Leu Lys Ala Leu Ser Phe Pro Lys Lys Ala Ala Leu Leu Ser 50 55 60
- Ala Ala Ile Leu Cys Phe Leu Arg Thr Ala Leu Arg Gln Ser Phe Ser 65 70 75 80
- Ser Ala Leu Val Ala Leu Val Pro Ser Gly Ala Gln Pro Leu Pro Ala 85 90 95
- Thr Lys Asp Thr Val Leu Ala Pro Leu Arg Met Ser Gln Val Arg Ser 100 105 110
- Leu Val Ile Gly Leu Gln Asn Leu Leu Val Gln Lys Asp Pro Leu Leu 115 120 125
- Ser Gln Ala Cys Val Gly Cys Leu Glu Ala Leu Leu Asp Tyr Leu Asp 130 135 140
- Ala Arg Ser Pro Asp Ile Ala Leu His Val Ala SerGln Pro Trp Asn 145 150 155

- Arg Phe Leu Leu Phe Thr Leu Leu Asp Ala Gly Glu Asn Ser Phe Leu 165 170 175
- Arg Pro Glu Ile Leu Arg Leu Met Thr Leu PheMet Arg Tyr Arg Ser 180 185 190
- Ser Ser Val Leu Ser His Glu Glu Val Gly Asp Val Leu Gln Gly Val 195 200 205
- Ala Leu Ala Asp Leu Ser Thr Leu Ser Asn Thr Thr Leu GlnAla Leu 210 215 220
- His Gly Phe Phe Gln Gln Leu Gln Ser Met Gly His Leu Ala Asp His 225 230 235 240
- Ser Met Ala Gln Thr Leu Gln Ala Ser Leu Glu Gly Leu Pro Pro Ser 245 250 255
- Thr Ser Ser Gly Gln Pro Pro Leu Gln Asp Met Leu Cys Leu Gly Gly 260 265 270
- Val Ala Val Ser Leu Ser His Ile Arg Asn 275 280
- <210> 624
- <211> 87
- <212> PRT
- <213> Homo sapiens
- <220>
- <221> SITE
- <222> (53)
- <223> Xaa equals any of the naturally occurring Lamino acids
- <400> 624
- Met Thr Ala Phe Cys Ser Leu Leu Leu Gl<br/>n Ala Gl<br/>n Ser Leu Leu Pro 1 5 10 15
- Arg Thr Met Ala Ala Pro Gln Asp Ser Leu Arg Pro Gly Glu Glu Asp 20 25 30
- Glu Gly Met Gln Leu Gln Thr Lys Asp Ser Met Ala Lys Gly Ala 35 40 45
- Arg Pro Gly Ala Xaa Arg Gly Arg Ala Arg Trp Gly Leu Ala Tyr Thr 50 60
- Leu Leu His Asn Pro Thr Leu Gln Val Phe Arg Lys Thr Ala Leu Leu 65 70 75 80
- Gly Ala Asn Gly Ala Gln Pro

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<210> 625
<211> 178
<212> PRT
<213> Homo sapiens
<400> 625
Met Leu Pro Leu Leu Ile Ile Cys Leu Leu Pro Ala Ile Glu Gly Lys
                                    1.0
Asn Cys Leu Arg Cys Trp Pro Glu Leu Ser Ala Leu Ile Asp Tyr Asp
Leu Gln Ile Leu Trp Val Thr Pro Gly Pro Pro Thr Glu Leu Ser Gln
Ser Ile His Ser Leu Phe Leu Glu Asp Asn Asn Phe Leu Lys Pro Trp
                         55
Tyr Leu Asp Arg Asp His Leu Glu Glu Glu Thr Ala Lys Phe Phe Thr
Gln Val His Gln Ala Ile Lys Thr Leu Arg Asp Asp Lys Thr Val Leu
Leu Glu Glu Ile Tyr Thr His Lys Asn Leu Phe Thr Glu Arg Leu Asn
                                105
Lys Ile Ser Asp Gly Leu Lys Glu Lys Gly Ala Pro Pro Leu Ser Met
Asn Ala Phe Pro Ala Pro Ser Pro Thr Cys Thr Pro Glu Pro Leu Gly
                        135
Ser Val Cys Leu Pro Ser Thr Ser Val Ser Leu Pro Ser His Pro Pro
                                         155
                    150
Trp Gln Pro Ala Met Ser Pro Val Pro Gly Thr Gly Gly Pro Pro Cys
                                     170
Gly Leu
<210> 626
<211> 298
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
 <222> (42)
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<223> Xaa equals any of the naturally occurring Lamino acids

<220> <221> SITE <222> (58)

- <223> Xaa equals any of the naturally occurring Lamino acids
- <400> 626
- Met Ala Arg Arg Ser Arg His Arg Leu Leu Leu Leu Leu Leu Arg Tyr 1 5 10 15
- Leu Val Val Ala Leu Gly Tyr His Lys Ala Tyr Gly Phe Ser Ala Pro  $20 \hspace{1cm} 25 \hspace{1cm} 30$
- Lys Asp Gln Gln Val Val Thr Ala Val Xaa Tyr Gln Glu Ala Ile Leu  $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$
- Ala Cys Lys Thr Pro Lys Lys Thr Val Xaa Ser Arg Leu Glu Trp Lys
  50 55 60
- Lys Leu Gly Arg Ser Val Ser Phe Val Tyr Tyr Gln Gln Thr Leu Gln 65 70 75 80
- Gly Asp Phe Lys Asn Arg Ala Glu Met Ile Asp Phe Asn Ile Arg Ile 85 90 95
- Lys Asn Val Thr Arg Ser Asp Ala Gly Lys Tyr Arg Cys Glu Val Ser 100 105 110
- Ala Pro Ser Glu Gln Gly Gln Asn Leu Glu Glu Asp Thr Val Thr Leu 115 120 125
- Glu Val Leu Val Ala Pro Ala Val Pro Ser Cys Glu Val Pro Ser Ser 130 135 140
- Ala Leu Ser Gly Thr Val Val Glu Leu Arg Cys Gln Asp Lys Glu Gly 145 150 155
- Asn Pro Ala Pro Glu Tyr Thr Trp Phe Lys Asp Gly Ile Arg Leu Leu 165 170 175
- Glu Asn Pro Arg Leu Gly Ser Gln Ser Thr Asn Ser Ser Tyr Thr Met 180 185 190
- Asn Thr Lys Thr Gly Thr Leu Gln Phe Asn Thr Val Ser Lys Leu Asp 195 200 205
- Thr Gly Glu Tyr Ser Cys Glu Ala Arg Asn Ser Val Gly Tyr Arg Arg 210 215 220
- Cys Pro Gly Lys Arg Met Gln Val Asp Asp Leu Asn Ile Ser Gly Id 225 230 235 240
- Ile Ala Ala Val Val Val Ala Leu Val Ile Ser Val Cys Gly Leu 245 250 255
- Gly Val Cys Tyr Ala Gln Arg Lys Gly Tyr Phe Ser Lys Glu Th Ser 260 265 270
- Phe Gln Lys Ser Asn Ser Ser Ser Lys Ala Thr Thr Met Ser Glu Asn 275 280 285

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290
                        295
<210> 627
<211> 46
<212> PRT
<213> Homo sapiens
<400> 627
Met Glu Pro Val Ala Leu Leu Gln Pro Thr Trp Trp Leu Leu Asn Val
Thr Leu Pro Leu Val Ala Trp Ser Gly Pro Leu Ile Cys ArgPro Leu
Leu His Gly Glu Gly Arg Gln Gly Ala Ala Cys Leu Gln Gly
<210> 628
<211> 65
<212> PRT
<213> Homo sapiens
<400> 628
Met Ile Lys Ile Leu Lys Glu Ala Ile Glu Glu Thr Ser Phe Cys Ser
                                                         1.5
                                     10
Phe Trp Arg Ile Ser Phe Gln Leu Ser Ile His His Ile Phe Leu Ile
                                 25
Phe Cys Ala Gln Leu Thr Thr Leu Leu Tyr Ser Thr Phe Leu Phe Ile
        35
Pro Ile Ser Trp Phe Leu Ile Val Pro Gly Ala Val Asp Lys Thr Ile
                         55
Leu
 65
<210> 629
<211> 208
<212> PRT
<213> Homo sapiens
<400> 629
Met Trp Leu Phe Ile Leu Leu Ser Leu Ala Leu Ile Ser Asp Ala Met
Val Met Asp Glu Lys Val Lys Arg Ser Phe Val Leu Asp Thr Ala Ser
```

Asp Phe Lys His Thr Lys Ser Phe Ile Ile

25

20

Ala Ile Cys Asn Tyr Asn Ala His Tyr Lys Asn His Pro Lys Tyr Trp 35 40 45

Cys Arg Gly Tyr Phe Arg Asp Tyr Cys Asn Ile Ile Ala Phe Ser Pro

Asn Ser Thr Asn His Val Ala Leu Arg Asp Thr Gly Asn Gln Leu Ile

Val Thr Met Ser Cys Leu Thr Lys Glu Asp Thr Gly Trp Tyr Trp Cys

Gly Ile Gln Arg Asp Phe Ala Arg Asp Asp Met Asp Phe Thr Glu Leu 100 105 110

Ile Val Thr Asp Asp Lys Gly Thr Leu Ala Asn Asp Phe Trp Ser Gly 115 120 125

Lys Asp Leu Ser Gly Asn Lys Thr Arg Ser Cys Lys Ala Pro Lys Val 130 135 140

Val Arg Lys Ala Asp Arg Ser Arg Thr Ser Ile Leu Ile Ile Cys Ile 145 150 155 160

Leu Ile Thr Gly Leu Gly Ile Ile Ser Val Ile Ser His Leu Thr Lys 165 170 175

Arg Arg Arg Ser Gln Arg Asn Arg Arg Val Gly Asn Thr Leu Lys Pro 180 185 190

Phe Ser Arg Val Leu Thr Pro Lys Glu Met Ala Pro Thr Glu Gln Met 195 200 205

<210> 630

<211> 44

<212> PRT

<213> Homo sapiens

<400> 630

Met Gly Trp Leu Trp Leu Glu Leu Leu Gly Leu Ser IleGlu Glu Thr 1 5 10 15

Leu Val Trp Ala Phe Leu Asn Lys Phe Leu Asp Ser Ser Ala Ala Leu 20 25 30

Leu Trp Arg Ile Leu Gly Lys Ser Asn Leu Ser Thr 35

<210> 631

<211> 158

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<212> PRT
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<213> Homo sapiens

<400> 631

Met Ala Leu Glu Val Leu Met Leu Leu Ala Val Leu Ile Trp Thr Gly
1 5 10 15

Ala Glu Asn Leu His Val Lys 1le Ser Cys Ser Leu Asp Trp Leu Met 20 25 30

Val Ser Val Ile Pro Val Ala Glu Ser Arg Asn Leu Tyr Ile Phe Ala 35 40 45

Asp Glu Leu His Leu Gly Met Gly Cys Pro  ${\tt Aa}$  Asn Arg Ile His Thr 50 55 60

Tyr Val Tyr Glu Phe Ile Tyr Leu Val Arg Asp Cys Gly Ile Arg Thr 65 70 75 80

Arg Val Val Ser Glu Glu Thr Leu Leu Phe Gln Thr &u Leu Tyr Phe \$85\$ 90 95

Thr Pro Arg Asn Ile Asp His Asp Pro Gln Glu Ile His Leu Glu Cys
100 105 110

Ser Thr Ser Arg Lys Ser Val Trp Leu Thr Pro Val Ser  $\mathrm{Kr}$  Glu Asn 115 120 125

Glu Ile Lys Leu Asp Pro Ser Pro Phe Ile Ala Asp Phe Gln Thr Thr 130 135 140

Ala Glu Glu Leu Gly Leu Leu Ser Ser Ser Pro Asn Leu Leu 145 150 155

<210> 632

<211> 101

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (67)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 632

Met Glu Leu Glu Arg Cys Ser Val Val Leu Cys Ile Leu Ala Ams Leu 1 5 10 15

Ala Val Leu Arg Ala Leu Phe Leu Pro Cys Ile Ile Phe His Cys Val 20 25 30

Ser Asp Ser Arg Ser Val Asn Arg Glu Thr Lys Val Lys Phe Val Hsi 35 40 45

Thr Ser Val His Gly Val Gly His Ser Phe Val Gln Ser Ala Phe Lys

50 55 60

Ala Phe Xaa Leu Val Pro Pro Glu Ala Val Pro Glu Gln Lys Asp Pro 65 70 75 80

Asp Pro Glu Phe Pro Thr Val Lys Tyr Pro Asn Pro Glu Glu Gly Lys
85 90 95

Gly Val Leu Val Thr 100

<210> 633

<211> 231

<212> PRT

<213> Homo sapiens

<400> 633

Met Trp Ala Leu Gln Leu Ser Leu Pro Thr Cys Gly Leu Ala Ala Leu 1 10 15

Leu Thr His Met Arg Pro Cys Ser Ser Pro Tyr Pro His Ala Gly Leu 20 25 30

Ala Ala Leu Leu Thr His Met Gly Pro Cys Arg Ser Pro Tyr Pro His 35 40 45

Gly Gly Leu Ala Ala Val Leu Thr His Met Arg Ala Leu Gln Leu Ser 50 60

Leu Pro Thr Trp Gly Leu Ala Ala Leu Leu Thr His Met Arg Pro Cys
65 70 75 80

Ser Ser Pro Tyr Pro His Ala Gly Leu Ala Cys Cys Trp Leu Trp Ser 85 90 95

Leu Ser Ser His Arg Ser Leu Gln Val Gln Ala Thr His Arg Leu Val 100 105 110

Val Arg Thr Ile Lys Asp Arg Val Met Leu Lys Val Leu Pro Gln Thr 115 120 125

Arg Arg Arg Gly Pro Phe Leu Ser Ser Cys Arg Asn Asp Val Met Arg 130 135 140

Asn Cys Val Pro Arg His Ala Val Leu Val Thr Thr Cys Val Phe Val 145 150 155 160

Ser Phe Pro Thr His Cys Lys Val Gly Ile Thr Gly Pro Ile Thr Gln 165 170 175

Val Lys Gln Lys Pro Gly Asn His Ser Ser Pro Cys Pro Val Ile Gln 180 185 190

Leu Val Ala Lys Ala Glu Phe Glu Leu Met Leu Pro Ser Val Pro Lys 195 200 205 Pro Val Tyr Leu Thr Leu Val Leu Ser Cys Trp Cys Leu Cys Asp Val 210 215 220

Pro Cys Leu Ser Val Ser Leu 225 230

<210> 634

<211> 71

<212> PRT

<213> Homo sapiens

<400> 634

Met Val Gln Gly Pro Leu Thr His Leu Met Leu Val Leu Leu Ile Ser 1 5 10 15

Leu Ile Phe Leu Ser Arg Gly Ser Gy Arg Ala Trp Ala Phe Ser His 20 25 30

Ser Cys Phe Lys Thr Ser Asp Leu Leu Pro Cys Arg Asn Arg Trp Glu 35 40 45

Val Ile Glu Phe Leu His Tyr Ser Asn Leu His &r His Ile Ser Leu 50 60

Ser Val Thr Lys Thr Phe Leu 65 70

<210> 635

<211> 230

<212> PRT

<213> Homo sapiens

<400> 635

Met Ala Ser Leu Gly Leu Gln Leu Val Gly Tyr Ile Leu Gly Læ Leu 1 5 10 15

Gly Leu Leu Gly Thr Leu Val Ala Met Leu Leu Pro Ser Trp Lys Thr 20 25 30

Ser Ser Tyr Val Gly Ala Ser Ile Val Thr Ala Val Gly Phe Ser Lsy 35 40 45

Gly Leu Trp Met Glu Cys Ala Thr His Ser Thr Gly Ile Thr Gln Cys
50 55 60

Asp Ile Tyr Ser Thr Leu Leu Gly Leu Pro Ala Asp Ile Gln Ala Ala 65 70 75 80

Gln Ala Met Met Val Thr Ser Ser Ala Ile Ser Ser Leu Ala Cys Ile  $85 \hspace{1cm} 90 \hspace{1cm} 95$ 

Ile Ser Val Val Gly Met Arg Cys Thr Val Phe Cys Gln Glu Ser Arg

100 105 110

Ala Lys Asp Arg Val Ala Val Ala Gly Gly Val Phe Phe Ile Leu Gly
115 120 125

Gly Leu Cly Phe Ile Pro Val Ala Trp Asn Leu His Gly Ile Leu 130 140

Arg Asp Phe Tyr Ser Pro Leu Val Pro Asp Ser Met Lys Phe Glu Ile 145 150 155 160

Gly Glu Ala Leu Tyr Leu Gly Ile Ile Ser Ser Leu Phe Ser Leu Ile 165 170 175

Ala Gly Ile Ile Leu Cys Phe Ser Cys Ser Ser Gln Arg Asn Arg Ser 180 185 190

Asn Tyr Tyr Asp Ala Tyr Gln Ala Gln Pro Leu Ala Thr Arg Ser Ser 195 200 205

Pro Arg Pro Gly Gln Pro Pro Lys Val Lys Ser Glu Phe Asn Ser Tyr 210 215 220

Ser Leu Thr Gly Tyr Val 225 230

<210> 636

<211> 37

<212> PRT

<213> Homo sapiens

<400> 636

Met Cys Tyr Ile Pro Gly Ser Thr Gly Gly Gln Cys Trp Pro Trp Cys 1 10 15

Trp Cys Trp Leu Cys Arg Glu Ala Leu Glu Trp Leu Cys Gly Ala Val 20 25 30

Ser Ala Gly Pro Ala 35

<210> 637

<211> 133

<212> PRT

<213> Homo sapiens

<400> 637

Met Arg Val Pro Leu Val Leu Ser Trp Ala Phe Val Leu Val Gly Phe 1 5 10 15

Ser Gly Val Tyr Leu Ala Ser Glu Ser Phe Trp Phe Pro Pro Ser Leu 20 25 30 Cys Asp Leu Thr Ser Pro Pro Gly Leu His Leu Trp Lys Phe Ile Arg 35 40 45

Asp Leu Val Ser Met Glu Glu Leu Thr Æsp Ser Ala Arg Glu Met Gly
50 55 60

Tyr Trp Met Met Val Phe Ser Leu Lys Ala Met Phe Pro Val Ser Ser 65 70 75 80

Gly Cys Phe Gln Glu Arg Gln Glu Thr Asn Lys &r Leu Thr Leu Leu 85 90 95

Arg Cys Ser Gln Arg Asp Thr Ser Pro Leu Met Asp Gly Gln Thr Trp
100 105 110

Ala Arg Val Arg Val Thr Lys Pro Pro Thr Thr Ala mr Ala Ala Tyr 115 120 125

Asn Arg His Ile Arg 130

<210> 638

<211> 42

<212> PRT

<213> Homo sapiens

<400> 638

Met Phe Leu Phe Ile Thr Phe Thr Ile Leu Ala Ile Phe Ile Ile Glu 1 5 10 15

Pro Arg Asn Leu Arg Val Asp Leu Asn Leu Ile Lys Phe Gln Thr Ser 20 25 30

Trp Pro Lys Thr Leu Val Glu Glu Gln Asn
35 40

<210> 639

<211> 44

<212> PRT

<213> Homo sapiens

<400> 639

Met Val Leu Lys Gln Lys Gln Tyr Leu Phe Thr Val Gly Ile Leu Phe 1 5 10 15

Ile Leu Phe Phe Ser Pro Val As<br/>n Ala Val Lys Arg Phe Ile Pro Leu 20 25 30

Arg Pro Gly Ser Ser Gln Ala Tyr Met Leu Leu Gly 35

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<210> 640
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<211> 111

<212> PRT

<213> Homo sapiens

<400> 640

Met Gln Phe Ser Leu Cys Leu Thr Ala Val Phe Leu Gln Leu Ala 1 5 10 15

Ala Gly Ile Leu Gly Phe Val Phe Ser Asp Lys Ala Arg Gly Lys Val 20 25 30

Ser Glu Ile Ile Asn Asn Ala Ile Val His Tyr Arg Ap Asp Leu Asp 35 40 45

Leu Gln Asn Leu Ile Asp Phe Gly Gln Lys Lys Val Trp Val Ser Gln 50 55 60

Trp Ser Gly Gly Leu Trp Val Lys Val Asn Val Ile Pro Arg Asp Ala 65 70 75 80

Ser Pro Ser Met Pro Val Gly Leu Phe Ile Thr Cys Gln Val Met Ala 85 90 95

Ser Gly Lys Gly Phe Gly Lys Lys Ser Thr Arg Ser Arg Val Leu 100 105 110

<210> 641

<211> 56

<212> PRT

<213> Homo sapiens

<400> 641

Met Phe Leu Lys Val Leu Val Phe Leu Ile Phe Phe Ser Pro Phe Ser 1 5 10 15

Ser Ser Leu Phe Ser Gly Glu Ala Val Arg Gly Arg Gly Ala Gly Leu 20 25 30

Gly Leu Gly Ile Gly Arg Gly Trp Thr Ser Cys Leu Ser Val Leu Asn 35 40 45

Gly Cys Asp Gly Ala Arg Ser His 50 55

<210> 642

<211> 78

<212> PRT

<213> Homo sapiens

<400> 642

Met Ser Pro His Gln Pro Met Gln Val Ser Ser Ser Lys Thr Ile Leu 1 5 10 15 Trp Leu Val Leu Ser Cys Leu Cys Pro Ser Ser Pro His Pro Val Ile 20 25 30

Ser Gly Leu Pro Gln Trp Tyr Ile Gly Val Leu Ala Gly Ile Val Pro 35 40 45

Val Ala Pro Ile Arg Pro Gly Asp Ser Gly Leu Asp Leu Gln Arg Glu
50 55 . 60

Gly Pro Gln Pro Ile Leu Ser Gln Gly Leu Asn Arg Arg Thr
65 70 75

<210> 643

<211> 52

<212> PRT

<213> Homo sapiens

<400> 643

Met Gly Pro Cys Arg Ala Ser Arg Cys Leu Ser Leu Leu Val Leu Phe 1 5 10 15

Pro Pro Gly Val Ala Gly Arg Pro Ala Pro Gly Arg Leu His Pro Val 20 25 30

Pro Thr Gly Pro Leu Pro Arg Met Tyr Ser Ala Gly Ala Arg Gly Arg 35 40 45

His Gly Ala His 50

<210> 644

<211> 50

<212> PRT

<213> Homo sapiens

<400> 644

Met Asp Gly Gly Pro Gly Ala Phe Ser Arg Ala Trp Val Leu Gln Ile 1 5 10 15

Pro Trp Leu Leu Ser Gly Gly Asn Phe Ala Leu Cys Glu Pro Arg 20 25 30

Pro Cys Pro Ser Ala Gly His Pro T $\mathbf{p}$  Gln Glu Ala Gly Leu Pro Ser 35 40 45

Ser Pro 50

<210> 645 <211> 45 <212> PRT <213> Homo sapiens

<400> 645

Met Leu Val Ser Leu Ile Ile Cys Leu Leu Leu Asp Leu Leu Asn Gln
1 5 10 15

Pro Ser Leu Leu Arg Asp Leu Ile Leu Lys Gln His Thr Gly Asn Pro 20 25 30

His Leu Ser Phe Pro Leu Lys Tyr Ser His Trp Met Gly 35 45

<210> 646

<211> 168

<212> PRT

<213> Homo sapiens

<400> 646

Met Val Thr Phe Ile Thr Ala Thr Leu Trp Ile Ala Val Phe Ser Tyr 1 5 10 15

Ile Met Val Trp Leu Val Thr Ile  $\mathbb{1}$ e Gly Tyr Thr Leu Gly Ile Pro 20 25 30

Asp Val Ile Met Gly Ile Thr Phe Leu Ala Ala Gly Gln Val Ser Arg 35 40 45

Leu His Gly Gln Pro Asn Cys Gly Glu Thr Arg Po Trp Gly His Gly 50 55 60

Ser Leu Gln His His Arg Ser Asn Val Phe Asp Ile Leu Val Gly Leu 65 70 75 80

Gly Val Pro Trp Gly Leu Gln Thr Met Val Val Asn Tyr Gy Ser Thr 85 90 95

Val Lys Ile Asn Ser Arg Gly Leu Val Tyr Ser Val Val Leu Leu 100 105 110

Gly Ser Val Ala Leu Thr Val Leu Gly Ile His Leu Asn Lys ftp Arg

Leu Asp Arg Lys Leu Gly Val Tyr Val Leu Val Leu Tyr Ala Ile Phe 130 140

Leu Cys Phe Ser Ile Met Ile Glu Phe Asn Val Phe Thr Phe Val Asn 145 150 155 160

Leu Pro Met Cys Arg Glu Asp Asp 165

<210> 647

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<211> 43
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<212> PRT

<213> Homo sapiens

<400> 647

Met Asn Leu Ile Phe Arg Leu Pro Cys Ile Leu Leu Thr Cys Ile Tyr
1 10 15

Val Gln Gln Cys Val Cys Lys Tyr Ile Gly Thr Phe Leu Asn Arg Val 20 25 30

Cys Ala Met Cys Lys Gly Leu Leu Thr Val Lys 35

<210> 648

<211> 105

<212> PRT

<213> Homo sapiens

<400> 648

Met Ser Gly Leu Ala Ala Ala Ala His Val Phe Arg Val Cys Leu Phe 1 5 10 15

Pro Leu Ser Trp Gly Ser Ser Lys Thr Thr Phe Ile His GlyLeu Ser 20 25 30

Ser Tyr Ile Ala Thr Pro Val Leu Asn Ser Ile Phe Ser Ser Trp Lys 35 40 45

Ser Arg Arg Lys Asp Thr Trp Thr Cys Leu Leu His Arg Leu Ser Ala 50 55 60

Phe Pro Ile Ser Arg Arg Arg Asn Phe Ala Leu Phe Ser His Ser 65 70 75 80

Cys Val Cys Ile Arg Ser Ser Ser Asp Asp Val Gly Pro Thr Met Tyr 85 90 95

Ser Phe Ser Val Pro Cys Arg Val Lys

<210> 649

<211> 1887

<212> PRT

<213> Homo sapiens

<400> 649

Met Ala Ala Arg Gly Arg Gly Leu Leu Leu Leu Thr Leu SerVal Leu 1 5 10 15

Leu Ala Ala Gly Pro Ser Ala Ala Ala Ala Lys Leu Asn Ile Pro Lys  $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$ 

Val Leu Leu Pro Phe Thr Arg Ala Thr Arg Val Asn Phe Thr LeuGlu Ala Ser Glu Gly Cys Tyr Arg Trp Leu Ser Thr Arg Pro Glu Val Ala Ser Ile Glu Pro Leu Gly Leu Asp Glu Gln Gln Cys Ser Gln Lys Ala 75 Val Val Gln Ala Arg Leu Thr Gln Pro Ala Arg Leu Thr Ser Ile Ile Phe Ala Glu Asp Ile Thr Thr Gly Gln Val Leu Arg Cys Asp Ala Ile 105 Val Asp Leu Ile His Asp Ile Gln Ile Val Ser Thr Thr Arg Glu Leu 120 Tyr Leu Glu Asp Ser Pro Leu Glu Leu Lys Ile Gln Ala Leu Asp Ser 135 Glu Gly Asn Thr Phe Ser Thr Leu Ala Gly Leu Val Phe Glu Trp Thr Ile Val Lys Asp Ser Glu Ala Asp Arg Phe Ser Asp Ser His Asn Ala Leu Arg Ile Leu Thr Phe Leu Glu Ser Thr Tyr Ile Pro Pro Ser Tyr 185 Ile Ser Glu Met Glu Lys Ala Ala Lys Gln Gly Asp Thr Ile Leu Val 200 Ser Gly Met Lys Thr Gly Ser Ser Lys Leu Lys Ala Arg Ile Gln Glu 215 Ala Val Tyr Lys Asn Val Arg Pro Ala Glu Val Arg Leu Leu Ile Leu Glu Asn Ile Leu Leu Asn Pro Ala Tyr Asp Val Tyr Leu Met Val Gly 250 Thr Ser Ile His Tyr Lys Val Gln Lys Ile Arg Gln Gly Lys Ile Thr Glu Leu Ser Met Pro Ser Asp Gln Tyr Glu Leu Gln Leu Gln Asn Ser 280 Ile Pro Gly Pro Glu Gly Asp Pro Thr Arg Pro Val Ala Val Leu Ala 295 Gln Asp Thr Ser Met Val Thr Ala Leu Gln Leu Gly Gln Ser Ser Leu 310

330

Val Leu Gly His Arg Ser Ile Arg Met Gln Gly Ala Ser Arg Leu Pro

- Asn Ser Thr Ile Tyr Val Val Glu Pro Gly Tyr Leu Gly Phe Thr Val 340 345 350
- His Pro Gly Asp Arg Trp Val Leu Glu Thr Gly Arg Leu Tyr Glu Ile 355 360 365
- Thr Ile Glu Val Phe Asp Lys Phe Ser Asn Lys Val Tyr Val Ser Asp 370 375 380
- Asn Ile Arg Ile Glu Thr Val Leu Pro Ala Glu Phe Phe Glu Val Leu 385 390 395 400
- Ser Ser Ser Gln Asn Gly Ser Tyr His Arg Ile Arg Ala Leu Lys Arg 405 410 415
- Gly Gln Thr Ala Ile Asp Ala Ala Leu Thr Ser Val Val Asp Gln Asp 420 425 430
- Gly Gly Val His Ile Leu Gln Val Pro Val Trp Asn Gln Gln Glu Val 435 440 445
- Glu Ile His Ile Pro Ile Thr Leu Tyr Pro Ser Ile Leu Thr Phe Pro 450 455 460
- Trp Gln Pro Lys Thr Gly Ala Tyr Gln Tyr Thr Ile ArgAla His Gly 465 470 475 486
- Gly Ser Gly Asn Phe Ser Trp Ser Ser Ser Ser His Leu Val Ala Thr 485 490 495
- Val Thr Val Lys Gly Val Met Thr Thr Gly Ser AspIle Gly Phe Ser 500 510
- Val Ile Gln Ala His Asp Val Gln Asn Pro Leu His Phe Gly Glu Met 515 520 525
- Lys Val Tyr Val Ile Glu Pro His Ser Met Glu Phe Ala Pro CysGln 530 535 540
- Val Glu Ala Arg Val Gly Gln Ala Leu Glu Leu Pro Leu Arg Ile Ser 545 550 555 560
- Gly Leu Met Pro Gly Gly Ala Ser Glu Val Val Thr Leu Ser Asp Cys 565 570 575
- Ser His Phe Asp Leu Ala Val Glu Val Glu Asn Gln Gly Val Phe Gln 580 585 590
- Pro Leu Pro Gly Arg Leu Pro Pro Gly Ser Glu His Cys Ser Gly Val 595 600 605
- Arg Val Lys Ala Glu Ala Gln Gly Ser Thr Thr Leu Leu Val Ser Tyr 610 620
- Arg His Gly His Val His Leu Ser Ala Lys Ile Thr Ile Ala Ala Tyr 625 630 635 640

Leu Pro Leu Lys Ala Val Asp Pro Ser Ser Val Ala Leu Val Thr Leu 645 Gly Ser Ser Lys Glu Met Leu Phe Glu Gly Gly Pro Arg Pro Trp Ile Leu Glu Pro Ser Lys Phe Phe Gln Asn Val Thr Ala Glu Asp Thr Asp 680 Ser Ile Gly Leu Ala Leu Phe Ala Pro His Ser Ser Arg Asn Tyr Gln 695 Gln His Trp Ile Leu Val Thr Cys Gln Ala Leu Gly Glu Gln Val Ile 715 Ala Leu Ser Val Gly Asn Lys Pro Ser Leu Thr Asn Pro Phe Pro Ala 730 Val Glu Pro Ala Val Val Lys Phe Val Cys Ala Pro Pro Ser Arg Leu 745 Thr Leu Val Pro Val Tyr Thr Ser Pro Gln Leu Asp Met Ser Cys Pro Leu Leu Gln Gln Asn Lys Gln Val Val Pro Val Ser Ser His Arg Asn Pro Leu Leu Asp Leu Ala Ala Tyr Asp Gln Glu Gly Arg Arg Phe Asp 795 Asn Phe Ser Ser Leu Ser Ile Gln Trp Glu Ser Thr Arg Pro Val Leu 805 810 Ala Ser Ile Glu Pro Glu Leu Pro Met Gln Leu Val Ser Gln Asp Asp 825 Glu Ser Gly Gln Lys Lys Leu His Gly Leu Gln Ala Ile Leu Val His Glu Ala Ser Gly Thr Thr Ala Ile Thr Ala Thr Ala Thr Gly Tyr Gln 855 Glu Ser His Leu Ser Ser Ala Arg Thr Lys Gln Pro His Asp Pro Leu 875 865 Val Pro Leu Ser Ala Ser Ile Glu Leu Ile Leu Val Glu Asp Val Arg 890 Val Ser Pro Glu Glu Val Thr Ile Tyr Asn His Pro Gly Ile Gln Ala 905 900 Glu Leu Arg Ile Arg Glu Gly Ser Gly Tyr Phe Phe Leu Asn Thr Ser Thr Ala Asp Val Val Lys Val Ala Tyr Gln Glu Ala Arg Gly Val Ala 935

- Met Val His Pro Leu Leu Pro Gly Ser Ser Thr Ile Met Ile His Asp 945 950 955 960
- Leu Cys Leu Val Phe Pro Ala Pro Ala LysAla Val Val Tyr Val Ser 965 970 975
- Asp Ile Gln Glu Leu Tyr Ile Arg Val Val Asp Lys Val Glu Ile Gly  $980 \hspace{1.5cm} 985 \hspace{1.5cm} 990$
- Lys Thr Val Lys Ala Tyr Val Arg Val Leu AspLeu His Lys Lys Pro
- Phe Leu Ala Lys Tyr Phe Pro Phe Met Asp Leu Lys Leu Arg Ala Ala 1010 1015 1020
- Ser Pro Ile Ile Thr Leu Val Ala Leu Asp Glu Ala &u Asp Asn Tyr 1025 1030 1035 1040
- Thr Ala Ser Val Thr Asn Lys AlaGly Gln Arg Ile Asn Ser Ala Pro 1060 1065 1070
- Gln Gln Ile Glu Val Phe Pro Pro Phe Arg Leu Met Pro Arg Lys Val 1075 1080 1085
- Thr Leu Leu Ile Gly Ala Thr Met Gln Val Thr Ser Glu Gly Gly Pro 1090 1095 1100
- Gln Pro Gln Ser Asn Ile Leu Phe Ser Ile Ser Asn Glu Ser Val Ala 1105 1110 1115 1120
- Leu Val Ser Ala Ala Gly Leu Val Gl<br/>n Gly Leu Ala Ile Gly As<br/>n Gly 1125 1130 1135
- Thr Val Ser Gly Leu Val Gln Ala Val Asp Ala Glu Thr Gly Lys Val 1140 1145 1150
- Val Ile Ile Ser Gln Asp Leu Val Gln Val Glu Val Leu Leu Arg 1155 1160 1165
- Ala Val Arg Ile Arg Ala Pro Ile Met Arg Met Arg Thr Gly Thr Gln 1170 1175 1180
- Met Pro Ile Tyr Val Thr Gly Ile Thr Asn His Gln Asn Pro Phe Ser 1185 1190 1195 1200
- Phe Gly Asn Ala Val Pro Gly Leu Thr Phe His Trp Ser Val Thr Lys 1205 1210 1215
- Arg Asp Val Leu Asp Leu Arg Gly Arg His His Glu Ala Ser Ile Arg 1220 1225 1230
- Leu Pro Ser Gln Tyr Asn Phe Ala Met Asn Val Leu Gly Arg Val Lys 1235 1240 1245

- Gly Arg Thr Gly Leu Arg Val Val Lys Ala Val Asp Pro Thr Ser 1250 1255 1260
- Gly Gln Leu Tyr Gly Leu Ala Arg Glu Leu Ser Asp Glu Ile Gln Val 1265 1270 1275 1280
- Gln Val Phe Glu Lys Leu Gln Leu Leu Asn Pro Glu Ile Glu Ala Glu 1285 1290 1295
- Gln Ile Leu Met Ser Pro Asn Ser Tyr Ile Lys Leu Gln Thr Asn Arg 1300 1305 1310
- Asp Gly Ala Ala Ser Leu Ser Tyr Arg Val Leu Asp Gly Pro Glu Lys 1315 1320 1325
- Val Pro Val Val His Val Asp Glu Lys Gly Phe Leu Ala Ser Gly Ser 1330 1335 1340
- Met Ile Gly Thr Ser Thr Ile Gly Val Ile Ala Gln Glu Pro Phe Gly 1345 1350 1355
- Ala Asn Gln Thr Ile  $\,$  Ile Val Ala Val Lys  $\,$  Val Ser Pro Val Ser  $\,$  Tyr  $\,$  1365  $\,$  1370  $\,$  1375
- Leu Arg Val Ser Met Ser Pro Val Leu His Thr Gln Asn Lys Glu Ala 1380 1385 1390
- Leu Val Ala Val Pro Leu Gly Met Thr Val Thr Phe Thr Val His Phe 1395 1400 1405
- His Asp Asn Ser Gly Asp Val Phe His Ala His Ser Ser Val Leu Asn 1410 1420
- Phe Ala Thr Asn Arg Asp Asp Phe Val Gln Ile Gly Lys Gly Pro Thr 1425 1430 1435 1440
- Asn Asn Thr Cys Val Val Arg Thr Val Ser Val Gly Leu Thr Leu Leu 1445 1450 1455
- Arg Val Trp Asp Ala Glu His Pro Gly Leu Ser Asp Phe Met Pro Leu 1460 1465 1470
- Pro Val Leu Gln Ala Ile Ser Pro Glu Leu Ser Gly Ala Met Val Val 1475 1480 1485
- Gly Asp Val Leu Cys Leu Ala Thr Val Leu Thr Ser Leu Glu Gly Leu 1490 1495 1500
- Ser Gly Thr Trp Ser Ser Ser Ala Asn Ser Ile Leu His Ile Asp Pro 1505 1510 1515
- Lys Thr Gly Val Ala Val Ala Arg Ala Val Gly Ser Val Thr Val Thy
  1525 1530 1535
- Tyr Glu Val Ala Gly His Leu Arg Thr Tyr Lys Glu Val Val Val Ser  $1540 \\ 1545 \\ 1550$

- Val Pro Gln Arg Ile Met Ala Arg His Leu His Pro Ile Gln Thr Ser 1555 1560 1565
- Phe Gln Glu Ala Thr Ala Ser Lys Val Ile Val Ala Val Gly Asp Arg 1570 1575 1580
- Ser Ser Asn Leu Arg Gly Glu Cys Thr Pro Thr Gln Arg Glu Va Ile 1585 1590 1595 1600
- Gln Ala Leu His Pro Glu Thr Leu Ile Ser Cys Gln Ser Gln Phe Lys 1605 1610 1615
- Pro Ala Val Phe Asp Phe Pro Ser Gln AspVal Phe Thr Val Glu Pro 1620 1630
- Gln Phe Asp Thr Ala Leu Gly Gln Tyr Phe Cys Ser Ile Thr Met His 1635 1640 1645
- Arg Leu Thr Asp Lys Gln Arg Lys His &u Ser Met Lys Lys Thr Ala 1650 1660
- Leu Val Val Ser Ala Ser Leu Ser Ser His Phe Ser Thr Glu Gln 1665 1670 1675
- Val Gly Ala Glu Val  $\mbox{ Pro Phe Ser Pro Gly Leu Phe Ala Asp Gln Ala} 1685$   $\mbox{ 1690}$   $\mbox{ 1695}$
- Glu Ile Leu Leu Ser Asn His Tyr Thr Ser Ser Glu Ile Arg Val Phe 1700 1710
- Gly Ala Pro Glu Val Leu Glu Asn Leu Glu Val Lys Ser Gly Ser Pro 1715 1720 1725
- Ala Val Leu Ala Phe Ala Lys Glu Lys Ser Phe Gly Trp Pro Ser Phe 1730 1735 1740
- Ile Thr Tyr Thr Val Gly Val Leu Asp Pro Ala Ala Gly Ser Gln Gly 1745 1750 1755 1760
- Pro Leu Ser Thr Thr Leu Thr Phe Ser Ser Pro Val Thr Asn Gln Ala 1765 1770 1775
- Ile Ala Ile Pro Val Thr Val Ala Phe Val Val Asp Arg Gly Pro
- Gly Pro Tyr Gly Ala Ser Leu Phe Gln His Phe Leu Asp Ser Tyr Gln 1795 1800 1805
- Val Met Phe Phe Thr Leu Phe Ala Leu Leu Ala Gly Thr Ala Val Met 1810 1815 1820
- Ile Ile Ala Tyr His Thr Val Cys Thr Pro Arg Asp Leu Ala Val Pro 1825 1830 1835 1840
- Ala Ala Leu Thr Pro  $\mbox{ Arg Ala Ser Pro Gly }\mbox{ His Ser Pro His Tyr }\mbox{ Phe}$  1845 1850 1855

Ala Ala Ser Ser Pro Thr Ser Pro Asn Ala Leu Pro Pro Ala Arg Lys 1860 1865 1870

Ala Ser Pro Pro Ser Gly Leu Trp Ser Pro Ala Tyr Ala Ser His 1875 1880 1885

<210> 650

<211> 52

<212> PRT

<213> Homo sapiens

<400> 650

Met Lys Cys Phe Phe Leu Phe Val Val Ile Leu Ile Iè Met Lys Ser 1 10 15

Asn Leu Ser Asp Ile Ile Ile Ala Thr Tyr Thr Tyr Cys Ile Pro Asp

Tyr Phe Phe His Thr Phe Ile Phe Asn Leu Ser Val Tyr Læ Asn Ser 35 40 45

Lys Phe Ile Ser 50

<210> 651

<211> 346

<212> PRT

<213> Homo sapiens

<400> 651

Met Asp Pro Ala Arg Lys Ala Gly Ala Gln Ala Met Ile Trp Thr Ala 1 5 10 15

Gly Trp Leu Leu Leu Leu Leu Arg Gly Gly Ala Gln Ala Leu Glu 20 25 30

Cys Tyr Ser Cys Val Gln Lys Ala Asp Asp Gly Cys Ser Pro Asn Lys 35 40 45

Met Lys Thr Val Lys Cys Ala Pro Gly Val Asp Val Cys Thr Glu Ala 50 55 60

Val Gly Ala Val Glu Thr Ile His Gly Gln Phe Ser Leu Ala Val Arg 65 70 75 80

Gly Cys Gly Ser Gly Leu Pro Gly Lys Asn Asp Arg Gly Leu Asp Leu 85 90 95

His Gly Leu Leu Ala Phe Ile Gln Leu Gln Gln Cys Ala Gln Asp Arg 100 105 110

Cys Asn Ala Lys Leu Asn Leu Thr Ser Arg Ala Leu Asp Pro Ala Gly 115 120 125

Asn Glu Ser Ala Tyr Pro Pro Asn Gly Val Glu Cys Tyr Ser Cys Val
130
135
140

Clu Lau Ser Arg Clu Ala Cys Gla Gly Thr Ser Pro Pro Val Val Ser

Gly Leu Ser Arg Glu Ala Cys Gln Gly Thr Ser Pro Pro Val Val Ser 145 150 155 160

Cys Tyr Asn Ala Ser Asp His Val Tyr Lys Gly Cys Phe Asp Gly Asn 165 170 175

Val Thr Leu Thr Ala Ala Asn Val Thr Val Ser Leu Pro Val Arg Gly
180 185 190

Cys Val Gln Asp Glu Phe Cys Thr Arg Asp Gly Val Thr Gly Pro Gly 195 200 205

Phe Thr Leu Ser Gly Ser Cys Cys Gln Gly Ser Arg Cys Asn Ser Asp 210 215 220

Leu Arg Asn Lys Thr Tyr Phe Ser Pro Arg Ile Pro Pro Leu Val Arg 225 230 235 240

Leu Pro Pro Pro Glu Pro Thr Thr Val Ala Ser Thr Thr Ser Val Thr  $245 \hspace{1cm} 250 \hspace{1cm} 255$ 

Thr Ser Thr Ser Ala Pro Val Arg Pro Thr Ser Thr Thr Lys Pro Met 260 265 270

Pro Ala Pro Thr Ser Gln Thr Pro Arg Gln Gly Val Glu His Glu Ala 275 280 285

Ser Arg Asp Glu Glu Pro Arg Leu Thr Gly Gly Ala Ala Gly His Gln 290 300

Asp Arg Ser Asn Ser Gly Gln Tyr Pro Ala Lys GlyGly Pro Gln Gln 305 310 315 320

Pro His Asn Lys Gly Cys Val Ala Pro Thr Ala Gly Leu Ala Ala Leu 325 330 335

Leu Leu Ala Val Ala Ala Gly Val Leu Leu 340 345

<210> 652

<211> 155

<212> PRT

<213> Homo sapiens

<400> 652

Met Trp Pro Gln Glu Ala Trp Val Cys Ile Leu Val Leu Leu Gly Thr 1 5 10 15

Arg Val Gly Leu Cys Val Gly Asp Ser Leu Ala Pro Gln Ala Ser Leu 20 25 30 Ser Tyr Cys Tyr Ile Leu Lys Val Pro Leu Arg Pro Lys Pro Leu Trp 35 40 45

Gln Leu Ser Asn Glu Ser Ile CysSer Glu Tyr Arg Val Glu Gly Gly
50 60

Gln Gly His Gln Glu Leu Arg Met Phe Leu Arg Leu Met Arg Pro Arg 65 70 75 80

Tyr Trp Val His Gly Gly Pro Arg Ser LeuCys Asp Ser Cys Ser Leu
85 90 95

Leu Pro Pro Cys Leu Asp Pro Ala Ser Ala Gln Lys Ala Asn Ser Leu 100 105 110

Asp Ser Lys Gly Leu Pro Arg Pro Ile Ser MetSer Cys Ser Cys Gln 115 120 125

Leu Pro Val Pro Ser Leu Asp Leu Ser Ser Cys Leu Ala Pro Ser Leu 130 135 140

Pro Thr Pro His Ile Phe Thr Asn Lys Arg Lys 145 150 155

<210> 653

<211> 30

<212> PRT

<213> Homo sapiens

<400> 653

Met Ala Leu Ser Val Leu Val Leu Leu Leu Leu Ala Val Leu Tyr Glu 1 5 10 15

Gly Ile Lys Val Gly Lys Ala Ser Cys Ser Thr Arg Tyr Trp
20 25 30

<210> 654

<211> 363

<212> PRT

<213> Homo sapiens

<400> 654

Met Lys Thr Leu Leu Leu Val Gly Leu Leu Leu Thr Trp Glu Asn 1 5 10 15

Gly Arg Val Leu Gly Asp Gln Met Val Ser Asp Thr Glu Leu Gln Glu 20 25 30

Met Ser Thr Glu Gly Ser Lys Tyr Ile Asn Arg Glu Ile Lys Asn Ala 35 40 45

Leu Lys Gly Val Lys Gln Ile Lys Thr Leu Ile Glu Gln Thr Asn Glu 50 55 60

Glu Arg Lys Ser Leu Leu Thr Asn Leu Glu Glu Ala Lys Lys Lys Glu Asp Ala Leu Asn Asp Thr Lys Asp Ser Glu Met Lys Leu Lys Ala Ser Gln Gly Val Cys Asn Asp Thr Met Met Ala Leu Trp Glu Glu Cys 105 Lys Pro Cys Leu Lys Gln Thr Cys Met Lys Phe Tyr Ala Arg Val Cys Arg Ser Ser Thr Gly Leu Val Gly His Gln Val Glu Glu Phe Leu Asn Gln Ser Ser Pro Phe Tyr Phe Trp Ile Asn Gly Asp Arg Ile Asp Ser 150 155 Leu Leu Glu Asn Asp Arg Gln Gln Thr His Ala Leu Asp Val Met Gln 165 170 Asp Ser Phe Asp Arg Ala Ser Ser Ile Met Asp Glu Leu Phe Gln Asp 185 Arg Phe Phe Thr Arg Glu Ala Gln Asp Pro Phe His Phe Ser Pro Phe Ser Ser Phe Gln Arg Arg Pro Phe Phe Asn Ile Lys His Arg Phe 215 Ala Arg Asn Ile Met Pro Phe Pro Gly Tyr Gln Pro Leu Asn Phe His Asp Met Phe Gln Pro Phe Phe Asp Met Ile His Gln Ala Gln Gln Ala 245 Met Asp Val Asn Leu His Arg Leu Pro His Phe Pro Met Glu Phe Thr 265 Glu Glu Asp Asn Gln Asp Gly Ala ValCys Lys Glu Ile Arg His Asn Ser Thr Gly Cys Leu Lys Met Lys Asp Gln Cys Glu Lys Cys Arg Glu 295 Ile Leu Ser Val Asp Cys Ser Ser Asn Asn Pro Ala Gln ValGln Leu Arg Gln Glu Leu Asn Asn Ser Leu Gln Ile Ala Glu Lys Phe Thr Lys 330 Leu Val Arg Arg Ala Ala Ala Val Leu Pro Gly Glu AspVal Gln His 345 Val Leu Pro Ala Glu Ala Ala Gly Arg Ala Val

<210> 655

<211> 122

<212> PRT

<213> Homo sapiens

<400> 655

Met Tyr Arg Ala Ile Asp Ser Phe Pro Arg Trp Arg Ser Tyr Phe Tyr  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Phe Ile Thr Leu Ile Phe Phe Leu Ala Trp Leu Val Lys Asn Val Phe 20 25 30

Ile Ala Val Ile Ile Glu Thr Phe AlaGlu Ile Arg Val Gln Phe Gln 35 40 45

Gln Met Trp Gly Ser Arg Ser Ser Thr Thr Ser Thr Ala Thr Thr Gln 50 60

Met Phe His Glu Asp Ala Ala Gly Gly Trp Gln Leu Val AlaVal Asp 65 70 75 80

Val Asn Lys Pro Gln Gly Arg Ala Pro Ala Cys Leu Gln Val Gln Tyr 85 90 95

Asn Asp Ile Phe Lys Asn Arg Pro Ala Lys Val Phe GluPhe Tyr Phe 100 105 110

Ile Gln Glu Asn Pro Gln Leu Phe Lys Leu 115 120

<210> 656

<211> 51

<212> PRT

<213> Homo sapiens

<400> 656

Met Ile Lys His Val Ala Trp Leu Ile Phe Thr Asn Cys Ile Phe Phe 1 5 10 15

Cys Pro Val Ala Phe Phe Ser Phe Ala Pro Leu Ile Thr Ala Ile Ser  $20 \\ 25 \\ 30$ 

Ile Ser Pro Glu Ile Met Lys Ser Val Thr Le Ile Phe Pro Cys  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Leu Leu Ala 50

<210> 657

<211> 72

<212> PRT

<213> Homo sapiens

<400> 657

Met Gly Ser Ala Ala Leu Glu Ile Leu Gly Leu Val Leu Cys Leu Val 1 5 10 15

Gly Trp Gly Gly Leu Ile Leu Ala Cys Gly Leu Pro Met Trp Gl<br/>n Val $20 \hspace{1cm} 25 \hspace{1cm} 30$ 

Thr Ala Phe Leu Asp His Asn Ile Val Thr Ala Gln Thr Thr Trp Lys 35 40 45

Gly Leu Trp Met Ser Cys Val Val Gln Ser Thr Gly Thr Cys Ser Ala 50 55 60

Lys Cys Thr Thr Arg Cys Trp Leu 65 70

<210> 658

<211> 118

<212> PRT

<213> Homo sapiens

<400> 658

Met Cys Tyr Leu Leu Leu Leu Ile Gln Thr Ala Glu Leu Leu Ile 1 5 10 15

His Pro Gln Gly Leu Gln Ala Val Ser Asn Gly Glu Ser Ala Leu Lys 20 25 30

Gly Thr Arg Pro Thr Phe Ser Ser Pro Phe Ile Leu Val Thr Glu Gly  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Arg Lys Glu Trp Glu Gly Val Phe Leu Ser Ser Gly Trp Lys Gly Asn 50 55 60

Thr Leu Ser Asn Tyr Tyr Ile Ser Leu Val Phe Tyr Tyr Ser Arg Ile 65 70 75 80

Leu Gln Pro Tyr Phe Tyr Cys Leu Trp Gly Lys Leu Glu Met Val Thr 85 90 95

Leu Ile Arg Ser Val Trp Arg Gly Ile Asn Gly Gly Asp Lys Ile Ser 100 105 110

Val Gly Phe Gly Lys Cys 115

<210> 659

<211> 169

<212> PRT

<213> Homo sapiens

<400> 659

Met Trp Ala Val Leu Arg Leu Ala Leu Arg Pro Cys Ala Arg Ala Ser 1 5 10 15

Pro Ala Gly Pro Arg Ala Tyr His Gly Asp Ser Val Ala Ser Leu Gly 20 25 30

Thr Gln Pro Asp Leu Gly Ser Ala Leu Tyr Gln Glu Asn Tyr Lys Gln
35 40 45

Met Lys Ala Leu Val Asn Gln Leu His Glu Arg Val Glu His Ile Lys  $50 \hspace{1cm} 55 \hspace{1cm} 60$ 

Leu Gly Gly Glu Lys Ala Arg Ala Leu His Ile Ser Arg Gly Lys
65 70 75 80

Leu Leu Pro Arg Glu Arg Ile Asp Asn Leu Ile Asp Pro Gly Ser Pro 85 90 95

Phe Leu Glu Leu Ser Gln Phe Ala Gly Tyr Gln Leu Tyr Asp Asn Glu  $100 \,$   $105 \,$   $110 \,$ 

Glu Val Pro Gly Gly Gly Ile Ile Thr Gly Ile Gly Arg Val Ser Gly 115 120 125

Val Glu Cys Met Ile Ile Ala Asn Asp Ala Thr Val Lş Gly Gly Ala 130 135 140

Tyr Tyr Pro Val Thr Val Lys Lys Gln Leu Arg Ala Gln Glu Ile Ala 145 150 155 160

Met Gln Thr Gly Ser Pro Ala Ser Thr 165

<210> 660

<211> 47

<212> PRT

<213> Homo sapiens

<400> 660

Met Thr Ala Gly Phe Met Gly Met Ala Val Ala Ile Ile Leu Phe Gly
1 10 15

Trp Ile Ile Gly Val Leu Gly Cys Cys Trp Asp Arg Gly LeuMet Gln
20 25 30

Tyr Val Ala Gly Cys Ser Ser Ser Trp Glu Gly Lys Gln Trp Asn 35 40 45

<210> 661

<211> 203

<212> PRT

<213> Homo sapiens

<400> 661

Met Gln Leu Gly Ser Val Leu Leu Thr Arg Cys Pro Phe Trp Gly Cys  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Phe Ser Gln Leu Met Leu Tyr Ala Glu Arg Ala Glu Ala Arg Arg Lys 20 25 30

Pro Asp Ile Pro Val Pro Tyr Leu Tyr Phe Asp Met Gly Ala Ala Val 35 40 45

Leu Cys Ala Ser Phe Met Ser Phe Gly Val Lys Arg Arg Trp Phe Ala 50 55 60

Leu Gly Ala Ala Leu Gln Leu Ala Ile Ser Thr Tyr Ala Ala Tyr Ile 65 70 75 80

Gly Gly Tyr Val His Tyr Gly Asp Trp Leu Lys Val Arg Met Tyr Ser 85 90 95

Arg Thr Val Ala Ile Ile Gly Gly Phe Leu Val Leu Ala Ser Gly Ala 100 105 110

Gly Glu Leu Tyr Arg Arg Lys Pro Arg Ser Arg Ser Leu Gln Ser Thr 115 120 125

Gly Gln Val Phe Leu Gly Ile Tyr Leu Ile Cys Val Ala Tyr Ser Leu 130 135 140

Gln His Ser Lys Glu Asp Arg Leu Ala Tyr Leu Asn His Leu Pro Gly 145 150 155 160

Gly Glu Leu Met Ile Gln Leu Phe Phe Val Bu Tyr Gly Ile Leu Ala 165 170 175

Pro Gly Leu Ser Val Arg Leu Leu Arg Asp Pro Arg Cys Pro Asp Pro 180 185 190

Gly Cys Thr Ala Ala Pro Cys His Ala Ala His 195 200

<210> 662

<211> 123

<212> PRT

<213> Homo sapiens

<400> 662

Met His Asp Gly Ser Lys Pro Phe Pro Arg Tyr Gly Tyr Lys Pro Ser 1 5

Pro Pro Asn Gly Cys Gly Ser Pro Leu Phe Gly Val His Leu Asn Ile 20 25 30

Gly Ile Pro Ser Leu Thr Lys Cys Cys Asn Gln His Asp Arg Cys Tyr

35 40 45

Glu Thr Cys Gly Lys Ser Lys Asn Asp Cys Asp Glu Glu Phe Gln Tyr 50 55 60

Cys Leu Ser Lys Ile Cys Arg Asp Val Gln Lys Thr Leu Gly Leu Thr 65 70 75 80

Gln His Val Gln Ala Cys Glu Thr Thr Val Gh Leu Leu Phe Asp Ser 85 90 95

Val Ile His Leu Gly Cys Lys Pro Tyr Leu Asp Ser Gln Arg Ala Ala 100 \$105

Cys Arg Cys His Tyr Glu Glu Lys Thr Asp Leu 115 120

<210> 663

<211> 23

<212> PRT

<213> Homo sapiens

<400> 663

Leu Gly Ser Leu Ser Thr Ala Pro Ser Ser Ala Leu Pro Thr Leu Gly  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Ala Arg Arg Thr Arg Ser Lys
20

<210> 664

<211> 60

<212> PRT

<213> Homo sapiens

<400> 664

Met Gly Asn Cys Gln Ala Gly His Asn Leu His Leu Cys Leu Ala His 1 5 10 15

His Pro Pro Leu Val Cys Ala Thr Leu Ile Leu Leu Leu Gly Leu 20 25 30

Ser Gly Leu Gly Leu Gly Ser Phe Leu Leu Thr His Arg Thr Gly Leu 35 40 45

Arg Thr Leu Thr Ser Pro Arg Thr Gly Ser Leu Pb 50 55 60

<210> 665

<211> 178

<212> PRT

<213> Homo sapiens

<400> 665

Met Ser Pro Ser Gly Arg Leu Cys Leu Leu Thr Ile Val Gly Leu Ile 1  $\phantom{-}$  5  $\phantom{-}$  10  $\phantom{-}$  15

Leu Pro Thr Arg Gly Gln Thr Leu Lys Asp Thr Thr Ser Ser Ser Ser 20 25 30

Ala Asp Ser Thr Ile Met Asp Ile Gln Val Pro Thr Arg Ala Pro Asp 35 40 45

Ala Val Tyr Thr Glu Leu Gln Pro Thr Ser Pro Thr Pro Thr Trp Pro 50 55 60

Ala Asp Glu Thr Pro Gln Pro Gln Thr Gln Thr Gln Gln Leu Glu Gly 65 70 75 80

Thr Asp Gly Pro Leu Val Thr Asp Pro Glu Thr His Lys Ser Thr Lys 85 90 95

Ala Ala His Pro Thr Asp Asp Thr Thr Leu Ser Glu Arg Pro Ser 100 105 110

Pro Ser Thr Asp Val Gln Thr Asp Pro Gln Thr Leu Lys Pro Ser Gly 115 120 125

Phe His Glu Asp Asp Pro Phe Phe Tyr Asp Glu His Thr Leu Arg Lys 130 135

Arg Gly Leu Val Ala Ala Val Leu Phe Ile ThrGly Ile Ile 145 150 155 160

Leu Thr Ser Gly Lys Cys Arg Gln Leu Ser Arg Leu Cys Arg Asn His 165 170 175

Cys Arg

<210> 666

<211> 219

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 666

Ala Ala Ala Thr Ala Ala Ser Leu Ser Pro Arg Gly Cys Arg Leu Arg
1 10 15

Thr Pro Ser Ser Asp Val Ser Pro Ser Arg Ala Pro Pro Pro Ser Ala 20 25 30

- Ala Pro Leu Pro Thr Gly Arg Ala Xaa Met Ser Pro Ser Gly Arg Leu 35 40 45
- Cys Leu Leu Thr Ile Val Gly Leu Ile Leu Pro Thr Arg Gly Gln Thr 50 55 60
- Leu Lys Asp Thr Thr Ser Ser Ser Ser Ala Asp Ser Thr Ile Met Asp 65 70 75 80
- Ile Gln Val Pro Thr Arg Ala Pro Asp Ala Val Tyr Thr Glu Leu Gln 85 90 95
- Pro Thr Ser Pro Thr Pro Thr Trp Pro Ala Asp Glu Thr Pro Gln Pro
  100 105 110
- Gln Thr Gln Thr Gln Gln Leu Glu Gly Thr Asp Gly Pro Leu Val Thr 115 120 125
- Asp Pro Glu Thr His Lys Ser Thr Lys Ala Ala His Pro Thr Asp Asp 130 135 140
- Thr Thr Leu Ser Glu Arg Pro Ser Pro Ser Thr Asp Val Gln Thr 145 150 155 160
- Asp Pro Gln Thr Leu Lys Pro Ser Gly Phe His Glu Asp Asp Pro Phe 165 170 175
- Phe Tyr Asp Glu His Thr Leu Arg Lys Arg Gly Leu Leu Val Ala Ala 180 \$185
- Val Leu Phe Ile Thr Gly Ile Ile Ile Leu Thr Ser Gly Lys Cys Arg 195 200 205
- Gln Leu Ser Arg Leu Cys Arg Asn His Cys Arg 210 215
- <210> 667
- <211> 173
- <212> PRT
- <213> Homo sapiens
- <400> 667
- Met Glu Ala Pro Gly Pro Arg Ala Leu Arg Thr Ala Leu Cys Gly Gly 1 5 15
- Cys Cys Leu Leu Cys Ala Gln Leu Ala Val Ala Gly Lys Gly
  20 25 30
- Ala Arg Gly Phe Gly Arg Gly Ala Leu Ile Arg Leu Asn Ile Trp Pro  $35 \hspace{1cm} 40 \hspace{1cm} 45$
- Ala Val Gln Gly Ala Cys Lys Gln LeuGlu Val Cys Glu His Cys Val 50 60
- Glu Gly Asp Arg Ala Arg Asn Leu Ser Ser Cys Met Trp Glu Gln Cys

65 70 75 80

Arg Pro Glu Glu Pro Gly His Cys Val Ala GlnSer Glu Val Val Lys
85 90 95

Glu Gly Cys Ser Ile Tyr Asn Arg Ser Glu Ala Cys Pro Ala Ala His  $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110$ 

His His Pro Thr Tyr Glu Pro Lys Thr Val Thr ThrGly Ser Pro Pro 115 120 125

Val Pro Glu Ala His Ser Pro Gly Phe Asp Gly Ala Ser Phe Ile Gly 130 135 140

Gly Val Val Leu Val Leu Ser Leu Gln Ala Val Ala Phe Phe Val Leu 145 150 155 160

His Phe Leu Lys Ala Lys Asp Ser Thr Tyr Gln Thr Leu 165 170

<210> 668

<211> 210

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (139)

<223> Xaa equals any of the naturally occurring Famino acids

<220>

<221> SITE

<222> (187)

<223> Xaa equals any of the naturally occurring bamino acids

<400> 668

Met Glu Ala Pro Gly Pro Arg Ala Leu Arg Thr Ala Leu Cys Gly Gly 1  $\phantom{0}$  10  $\phantom{0}$  15

Cys Cys Cys Leu Leu Cys Ala Gln Leu Ala Val Ala Gly Lys Gly
20 25 30

Ala Arg Gly Phe Gly Arg Gly Ala Leu Ile Arg Leu Asn Ile Trp Pro  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Ala Val Gln Gly Ala Cys Lys Gln Leu Glu Val Cys Glu His Cys Val 50 60

Glu Gly Asp Arg Ala Arg Asn Leu Ser Ser Cys Met Trp Glu Gln Cys 65 70 75 80

Arg Pro Glu Glu Pro Gly His Cys Val Ala Gln Ser Glu Val Val Lys 85 90 95

Glu Gly Cys Ser Ile Tyr Asn Arg Ser Glu Ala Cys Pro Ala Ala His

His His Pro Thr Tyr Glu Pro Lys Thr Val Thr Thr Gly Ser Pro Pro 120 Val Pro Glu Ala His Ser Pro Gly Phe Asp Xaa Ala Ser Phe Ile Gly 135 Gly Val Val Leu Val Leu Ser Leu Gln Ala Val Ala Phe Phe Val Leu 150 155 Thr Ser Ser Arg Pro Arg Thr Ala Pro Thr Arg Arg Cys Glu Tyr Leu Ala Ser Ser Lys Tyr Leu Ser Pro Ser Ser Xaa Leu Val Pro Ala His 180 185 Val Pro Phe Ser Thr Gln Gly Ala Val Phe Ser Thr Gly Lys Pro Ser 200 Gly Arg 210 <210> 669 <211> 105 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (70) <223> Xaa equals any of the naturally occurring Lamino acids <400> 669 Met Ile Ser Tyr Ile Val Leu Leu Ser Ile Leu Leu Trp Pro Leu Val 10 Val Tyr His Glu Leu Ile Gln Arg Met Tyr Thr Arg Leu Glu Pro Leu Leu Met Gln Leu Asp Tyr Ser Met Lys Ala Glu Ala Asn Ala Leu His His Lys His Asp Lys Arg Lys Arg Gln Gly Lys Asn Ala Pro Pro Gly Gly Asp Glu Pro Leu Xaa Glu Thr Glu Ser Glu Ser Glu Ala Glu Leu Ala Gly Phe Ser Pro Val Val Asp Val Lys Lys Thr Ala Leu Ala Leu

105

100

Ala Ile Tyr Arg Leu Arg Ala Val Arg

100

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<210> 670
<211> 89
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (24)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (75)
<223> Xaa equals any of the naturally occurring Lamino acids
Met Phe Lys Asp Tyr Pro Pro Ala Ile Lys Pro Ser Tyr Asp Val Leu
Leu Leu Leu Leu Leu Val Xaa Leu Leu Gln Ala Gly Leu Asn Thr
                                 25
Gly Thr Ala Ile Gln Cys Val Arg Phe Lys Val Ser Ala Arg Leu Gln
Gly Ala Ser Trp Asp Thr Gln Asn Gly Pro Gln Glu Arg Leu Ala Gly
Glu Val Ala Arg Ser Pro Leu Lys Glu Phe Xa Lys Glu Lys Ala Trp
Arg Ala Val Val Gln Met Ala Gln
                 85
<210> 671
<211> 127
<212> PRT
<213> Homo sapiens
<400> 671
Met Gly Gln Val Trp Arg Val Pro ProLeu Leu Ser Val Gln Val
Phe Leu Thr Met Ala His Ala Phe His Gln Ala Pro Glu Leu Gln Trp
Leu Gly Leu Trp Phe Trp Val Arg Leu Phe Ala Gly Gly Asp Gly Gly
                             40
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Leu His Leu Asn Ile Ser Ser Val Thr Leu Pro Leu Leu His Gly Lys

Gln Leu Ser Arg Glu Val Pro Ser Cys Gln Gly Lys Pro Arg LeuGly

65 70 75 80

Arg Pro Pro Tyr Lys Glu Pro Gln Asp Cys Ser His Gly Cys His Leu 85 90 95

Ser Trp Lys Gly Arg Phe Met Gly Phe Pro Gly Thr Pro ArgLeu Ser 100 105 110

Trp Pro Arg Gly Lys Arg Trp Leu Leu Gln Glu Phe Asp Leu Ser 115 120 125

<210> 672

<211> 9

<212> PRT

<213> Homo sapiens

<400> 672

Leu Gly Lys Pro Trp Arg Tyr Pro Thr

<210> 673

<211> 2

<212> PRT

<213> Homo sapiens

<400> 673 Leu Gln 1

<210> 674

<211> 146

<212> PRT

<213> Homo sapiens

<400> 674

Met Trp Lys Leu Trp Arg Ala Glu Glu Gly Ah Ala Ala Leu Gly Gly
1 10 15

Ala Leu Phe Leu Leu Phe Ala Leu Gly Val Arg Gln Leu Leu Lys 20 25 30

Gln Arg Arg Pro Met Gly Phe Pro Pro Gly Pro Pro Gly Leu Pro Phe 35 40

Ile Gly Asn Ile Tyr Ser Leu Ala Ala Ser Ser Glu Leu Pro His Val 50 60

Tyr Met Arg Lys Gln Ser Gln Val Tyr Gly Glu Val Gln Pro Arg Arg 65 70 75 80

Ala Pro Gly Arg Glu Gly Arg Gln Ala Gly Pro Gly Trp Pro Gly Pro

85 95 Ser Trp Leu Asp Leu Trp Pro Pro Leu Gly Arg Leu Val Gly Thr Se 105 Pro Cys Ala Gly Cys Pro Leu Arg Asp Thr Arg Phe Pro Gly Leu Glu 115 120 Gly Arg Ser Pro Arg Arg Ala Pro Leu Gln Gly Glu Pro Arg Pro 135 Cys Arg 145 <210> 675 <211> 941 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (807) <223> Xaa equals any of the naturally occurring Famino acids <220> <221> SITE <222> (809) <223> Xaa equals any of the naturally occurring bamino acids <220> <221> SITE <222> (815) <223> Xaa equals any of the naturally occurring bamino acids <220> <221> SITE <222> (819) <223> Xaa equals any of the naturally occurring Lamino acids <400> 675 Met Val Phe Leu Pro Leu Lys Trp Ser Leu Ala Thr Met Ser Phe Leu 10 Leu Ser Ser Leu Leu Ala Leu Leu Thr Val Ser Thr Pro Ser Trp Cys Gln Ser Thr Glu Ala Ser Pro Lys Arg Ser Asp Gly Thr Pro Phe Pro 40 Trp Asn Lys Ile Arg Leu Pro Glu Tyr Val Ile Pro Val His Tyr Asp

Leu Leu Ile His Ala Asn Leu Thr Thr Leu Thr Phe Trp Gly Thr Thr

70

- Lys Val Glu Ile Thr Ala Ser Gln Pro Thr Ser Thr Ile Ile Leu His  $85 \hspace{1cm} 90 \hspace{1cm} 95$
- Ser His His Leu Gln Ile Ser Arg Ala Thr Leu Arg Lys Gly Ala Gly 100 105 110
- Glu Arg Leu Ser Glu Glu Pro Leu Gln Val Leu Glu His Pro Pro Gln
  115 120 125
- Glu Gln Ile Ala Leu Leu Ala Pro Glu Pro Leu Leu Val Gly Leu Pro 130 135 140
- Tyr Thr Val Val Ile His Tyr Ala Gly Asn Leu Ser Glu Thr Phe His 145 150 155 160
- Gly Phe Tyr Lys Ser Thr Tyr Arg ThrLys Glu Gly Glu Leu Arg Ile 165 170 175
- Leu Ala Ser Thr Gln Phe Glu Pro Thr Ala Ala Arg Met Ala Phe Pro 180 185 190
- Cys Phe Asp Glu Pro Ala Phe Lys Ala SerPhe Ser Ile Lys Ile Arg 195 200 205
- Arg Glu Pro Arg His Leu Ala Ile Ser Asn Met Pro Leu Val Lys Ser 210 215 220
- Val Thr Val Ala Glu Gly Leu Ile Glu Asp His Phe Asp Val ThrVal 225 230 235 240
- Lys Met Ser Thr Tyr Leu Val Ala Phe Ile Ile Ser Asp Phe Glu Ser 245 250 255
- Val Ser Lys Ile Thr Lys Ser Gly Val Lys Val Ser Val TyrAla Val 260 265 270
- Pro Asp Lys Met Asn Gln Ala Asp Tyr Ala Leu Asp Ala Ala Val Thr 275 280 285
- Leu Leu Glu Phe Tyr Glu Asp Tyr Phe Ser Ile Pro Tyr Pro Leu Pro 290 295 300
- Lys Gln Asp Leu Ala Ala Ile Pro Asp Phe Gln Ser Gly Ala Met Glu 305 310 315 320
- Asn Trp Gly Leu Thr Thr Tyr Arg Glu Ser Ala Leu Leu Phe Asp Ala 325 330 335
- Glu Lys Ser Ser Ala Ser Ser Lys Leu Gly Ile Thr Met Thr Val Ala 340 345 350
- His Glu Leu Ala His Gln Trp Phe Gly Asn Leu Val Thr Met Glu Trp 355 360 365
- Trp Asn Asp Leu Trp Leu Asn Glu Gly Phe Ala Lys Phe Met Glu Phe 370 380

Val Ser Val Ser Val Thr His Pro Glu Leu Lys Val Gly Asp Tyr Phe 390 Phe Gly Lys Cys Phe Asp Ala Met Glu Val Asp Ala Leu Asn Ser Ser 405 410 His Pro Val Ser Thr Pro Val Glu Asn Pro Ala Gln Ile Arg Glu Met 425 Phe Asp Asp Val Ser Tyr Asp Lys Gly Ala Cys Ile Leu Asn Met Leu Arg Glu Tyr Leu Ser Ala Asp Ala Phe Lys Ser Gly Ile Val Gln Tyr 455 Leu Gln Lys His Ser Tyr Lys Asn Thr Lys Asn Glu Asp Leu Trp Asp 470 Ser Met Ala Ser Ile Cys Pro Thr Asp Gly Val Lys Gly Met Asp Gly 490 Phe Cys Ser Arg Ser Gln His Ser Ser Ser Ser His Trp His Gln Glu Gly Val Asp Val Lys Thr Met Met Asn Thr Trp Thr Leu Gln Arg 520 Gly Phe Pro Leu Ile Thr Ile Thr Val Arg Gly Arg Asn Val His Met 535 Lys Gln Glu His Tyr Met Lys Gly Ser Asp Gly Ala Pro Asp Thr Gly 545 550 555 Tyr Leu Trp His Val Pro Leu Thr Phe Ile Thr Ser Lys Ser Asp Met 565 570 Val His Arg Phe Leu Leu Lys Thr Lys Thr Asp Val Leu Ile Leu Pro 585 Glu Glu Val Glu Trp Ile Lys Phe Asn Val Gly Met Asn Gly Tyr Tyr Ile Val His Tyr Glu Asp Asp Gly Trp Asp Ser Leu Thr Gly Leu Leu Lys Gly Thr His Thr Ala Val SerSer Asn Asp Arg Ala Ser Leu Ile 630 635 Asn Asn Ala Phe Gln Leu Val Ser Ile Gly Lys Leu Ser Ile Glu Lys Ala Leu Asp Leu Ser Leu Tyr Leu Lys His Glu Thr Glu Ile Met Pro 665 Val Phe Gln Gly Leu Asn Glu Leu Ile Pro Met Tyr Lys Leu Met Glu 675 680

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Lys Arg Asp Met Asn Glu Val Glu Thr GlnPhe Lys Ala Phe Leu Ile
Arg Leu Leu Arg Asp Leu Ile Asp Lys Gln Thr Trp Thr Asp Glu Gly
                                        715
Ser Val Ser Glu Arg Met Leu Arg Ser Glu Leu LeuLeu Leu Ala Cys
                                    730
Val His Asn Tyr Gln Pro Cys Val Gln Arg Ala Glu Gly Tyr Phe Arg
Lys Trp Lys Glu Ser Asn Gly Asn Leu Ser Leu Pro ValAsp Val Thr
Leu Ala Val Phe Ala Val Gly Ala Gln Ser Thr Glu Gly Trp Asp Phe
                        775
Leu Tyr Ser Lys Tyr Gln Phe Ser Leu Ser Ser Thr Glu Lys Ser Gln
                   790
                                       795
Ile Glu Phe Ala Leu Cys Xaa Pro Xaa Asn Lys Glu Lys Leu Xaa Trp
                                    810
Leu Leu Xaa Glu Ser Phe Lys Gly Asp Lys Ile Lys Thr Gln Glu Phe
Pro Gln Ile Leu Thr Leu Ile Gly Arg Asn Pro Val Gly Tyr Pro Leu
Ala Trp Gln Phe Leu Arg Lys Asn Trp Asn Lys Leu Val Gln Lys Phe
                       855
Glu Leu Gly Ser Ser Ser Ile Ala His Met Val Met Gly Thr Thr Asn
                    870
Gln Phe Ser Thr Arg Thr Arg Leu Glu Glu Val Lys Gly Phe Phe Ser
                885
                                    890
Ser Leu Lys Glu Asn Gly Ser Gln Leu Arg Cys Val Gln Gln Thr Ile
                                905
Glu Thr Ile Glu Glu Asn Ile Gly Trp Met Asp Lys Asn Phe Asp Lys
        915
Ile Arg Val Trp Leu Gln Ser Glu Lys Leu Glu Arg Met
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930

935

<sup>&</sup>lt;210> 676

<sup>&</sup>lt;211> 271

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Homo sapiens

<sup>&</sup>lt;400> 676

Met Thr Gln Gly Lys Leu Ser Val Ala Asn Lys Ala ProGly Thr Glu

1				5					10					15	
Gly	Gln	Gln	Gln 20	Val	His	Gly	Glu	Lys 25	Lys	Glu	Ala	Pro	Ala 30	Val	Pro
Ser	Ala	Pro 35	Pro	Ser	Tyr	Glu	Glu 40	Ala	Thr	Ser	Gly	Glu 45	GlyM	let I	ys
Ala	Gly 50	Ala	Phe	Pro	Pro	Ala 55	Pro	Thr	Ala	Val	Pro 60	Leu	His	Pro	Ser
Trp 65	Ala	Tyr	Val	Asp	Pro 70	Ser	Ser	Ser	Ser	Ser 75	Tyr	Asp	Asn	Gly	Phe 80
Pro	Thr	Gly	Asp	His 85	Glu	Leu	Phe	Thr	Thr 90	Phe	Ser	Trp	Asp	Asp 95	Gln
Lys	Val	Arg	Arg 100	Val	Phe	Val	Arg	Lys 105	Val	Tyr	Thr	Ile	Leu 110	Leu	Ile
Gln	Leu	Leu 115	Val	Thr	Leu	Ala	Val 120	Val	Ala	Leu	Phe	Thr 125	Phe	Cys	Asp
Pro	Val 130	Lys	Asp	Tyr	Val	Gln 135	Ala	Asn	Pro	Gly	Trp 140	Tyr	Trp	Ala	Ser
Tyr 145	Ala	Val	Phe	Phe	Ala 150	Thr	Tyr	Leu	Thr	Leu 155	Ala	Cys	Cys	Ser	Gly 160
Pro	Arg	Arg	His	Phe 165	Pro	Trp	Glu		Asp 170	Ser	Pro	Asp		Leu 175	Tyr
Pro	Val	His	Gly 180	Leu	Pro	His	Trp	Asp 185	Ala	Val	Gln	Leu	Leu 190	Gln	His
His	Leu	Arg 195	Ala	Ala	Val	Pro	Gly 200	His	His	Gly		Cys 205	Leu	Pro	Leu
Ser	His 210	Arg	Leu	Gln	Leu	Pro 215	Asp	Gln	Val	Arg	Leu 220	His	Leu	Leu	Pro
Gly 225	Arg	Ala	Leu	Arg	Ala 230	Ser	His	Asp	Ser	Phe 235	Leu	Gln	Arg		His 240
Pro	Gly	His	Pro	Pro 245	Thr	Leu	Pro	Ile	Cys 250	Ala	Leu	Ala	Pro	Cys 255	Ser
Leu	Cys	Ser	Thr	-	Ser	-	-	Ile	-	Ile	Val	Pro	Gly	Thr	

<210> 677 <211> 138 <212> PRT <213> Homo sapiens

<400> 677

Met Ala Tyr Leu Thr Gly Met Leu Ser Ser Tyr Tyr Asn Thr Thr Ser 1 5 10 15

Val Leu Cys Leu Gly Ile Thr Ala Leu Val Cys  $\bullet$ u Ser Val Thr 20 25 30

Val Phe Ser Phe Gln Thr Lys Phe Asp Phe Thr Ser Cys Gln Gly Val 35 40 45

Leu Phe Val Leu Leu Met Thr Leu Phe Phe Ser Gly Leu Ile Leu  $\mathbb{A}$ a 50 55 60

Ile Leu Leu Pro Phe Gln Tyr Val Pro Trp Leu His Ala Val Tyr Ala 65 70 75 80

Ala Leu Gly Ala Gly Val Phe Thr Leu Phe Leu Ala Leu Asp Thr Gln 85 90 95

Leu Leu Met Gly Asn Arg Arg His Ser Leu Ser Pro Glu Glu Tyr Ile 100 105 110

Phe Gly Ala Leu Asn Ile Tyr Leu Asp Ile Ile Tyr Ile Phe Thr Phe 115 120 125

Phe Leu Gln Leu Phe Gly Thr Asn Arg Glu 130 135

<210> 678

<211> 157

<212> PRT

<213> Homo sapiens

<400> 678

Met Val Lys Ser Val Ile Phe Leu Ser Phe Trp Gln Gly Met Leu Leu  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Ala Ile Leu Glu Lys Cys Gly Ala Ile Pro Lys Ile His Ser Ala Arg 20 25 30

Val Ser Val Gly Glu Gly Thr Val Ala Ala Gly Tyr His Asp Phe Ile 35 40 45

Ile Cys Val Glu Met Phe Phe Ala Ala Leu Ala Leu Arg His Pro Phe 50 60

Thr Tyr Asn Val Tyr Ala Asp Lys Arg Leu Asp Ala Gln Gly Arg Cys
65 70 75 80

Ala Pro Met Lys Ser Ile Ser Ser Ser Leu Lys Glu Thr Met Asn Pro 85 90 95

His Asp Ile Val Gln Asp Ala Ile His Asn Phe Ser Pro Ala Tyr Gln 100 105 110

Gln Tyr Thr Gln Gln Ser Thr Leu Glu Pro Gly Pro Thr Trp Arg Gly 115 120 125

Gly Ala His Gly Leu Ser Arg Ser His Ser Leu Ser Gly Ala Arg Asp 130 140

Asn Glu Lys Thr Leu Leu Ser Ser Asp Asp Glu Phe 145 150 155

<210> 679

<211> 118

<212> PRT

<213> Homo sapiens

<400> 679

Phe Leu Ser Ser Trp Gln Arg Pro Ala Cys Gly Cys Gln Arg Pro Ala 1 5 10 15

Leu Pro Leu His Leu Gly Gly Ala Glu Gln Leu Gly Pro Ser Cys Pro 20 25 30

Gly Gly Trp Val Gln Thr Gln Ala Glu Asp Gln Pro Trp Pro Cys Pro 35 40 45

Ala Ile Cys Phe His Gln Ala Val Ser Pro Pro Trp Leu Pro Phe Ser 50 55 60

Leu Gln Ala Lys Val Leu Leu Ile Pro Thr Pro Leu Val Phe Ala Cys 65 70 75 80

Pro Ala Leu Leu Phe Ala Trp Arg Val Gly Gly Ala Gln Trp Gln Gly 85 90 95

Ile Ser Gly Pro Trp Gly Arg Gly Asp Gly Asn Met Cys Pro Thr Ala 100 105 110

Pro Ser Pro Pro Pro Pro 115

<210> 680

<211> 59

<212> PRT

<213> Homo sapiens

<400> 680

Met Met Lys Asp Val Phe Phe Phe Leu Phe Leu Leu Ala Val Trp Val 1 5 10 15

Val Ser Phe Gly Val Ala Lys Gln Ala Ile Leu Ile His Asn Glu Arg 20 25 30

Arg Val Asp Trp Leu Phe Arg Gly Pro Ser Thr Thr Pro Thr Ser Pro 35 40 45

```
Ser Ser Gly Arg Ser Arg Ala Thr Ser Thr Val
<210> 681
<211> 46
<212> PRT
<213> Homo sapiens
<400> 681
Met Pro Trp Leu Lys Ser Leu Leu His Phe Ser Leu Phe Leu Val Val
Phe Ser Thr Leu Ala Val Lys Ser Leu Gly Val Pro Val Ala Ala Gly
Ser Pro Phe Cys Ile Val Asp Val Leu His Phe Ile Leu Leu
                             40
<210> 682
<211> 64
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring Famino acids
<220>
<221> SITE
<222> (27)
<223> Xaa equals any of the naturally occurring Famino acids
<400> 682
Ser Trp Val Ile Val Val Xaa Ile Trp Gly Tyr Leu Leu Glu Gly His
Gly Val Pro Phe Cys Lys Ser Tyr Gly Pro Xaa Pro Trp Lys Leu His
                                25
                                                     30
Thr His His Ala Ala Tyr Asn Ser Gly Ser Ser Gln Val Tyr Arg Ile
Leu Gly Asn Ser Pro Cys Pro Val Leu Ile His Cys Ser Phe Ser Gly
```

55

<210> 683

```
<211> 14
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (14)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 683
Trp Lys Gly Leu Leu Glu Gly Ser Xaa Glu Ala Thr Met Xaa
                  5
<210> 684
<211> 107
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (66)
<223> Xaa equals any of the naturally occurring £amino acids
<400> 684
Pro Leu Gly Arg Glu Pro Leu Ala Gly Phe Leu Ser Phe Leu Ser Phe
Ser Leu Leu Trp Cys Leu Glu Ala Phe Pro Arg Leu Gln Phe Leu Thr
Thr Leu Thr Asp Phe Ala Ile Val Leu Ser Pro Pro Leu Ser Phe Pro
Lys Leu Thr Leu Trp Arg Leu Ile Lys Arg Lys Asn His Arg Pro Gly
                         5.5
Ala Xaa Leu Thr Pro Arg Arg Ala Asn His Leu Arg Cys Gly Val
                                         75
Arg Asp Gln Pro Asp Gln Asn Arg Glu Thr Pro Ser Leu Leu Asn Asn
Thr Lys Leu Ala Gly Arg Gly Gly Ala Arg Leu
<210> 685
<211> 127
<212> PRT
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<213> Homo sapiens
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<400> 685

Met Pro Arg Ala Pro Trp Arg Ile Pro Leu Cys Ala Leu Pro Thr Leu

1 10 15

Cys Leu Gly Ser Pro Leu Pro Ser Gln Pro Thr His Pro Ile Phe Tyr 20 25 30

Asp His Arg Ala Pro Thr Trp Lys Met Ala His Pro Gly Gly Pro Arg 35 40 45

Ser Ser His Ser Pro Arg Gly Pro Gly Gly His Pro Ala Leu Arg Gln 50 55 60

Arg Leu Pro Cys Arg Arg Gly Glu Pro Glu Thr Ala Leu Cys Ser Ser 65 70 75 80

Ala Pro Gly Ala Gly Phe Ala Glu Pro Pro Cys Lys Ala Ser Pro Gly
85 90 95

Trp Gly Pro Pro Ser Arg Gly Pro Gln Gly Asp Arg Ser Gln Gly Glu
100 105 110

Trp Leu Pro Ala Leu Gly Thr Pro Cys Gly Gly Pro Asp Asp Ser 115 120 125

<210> 686

<211> 90

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (57)

<223> Xaa equals any of the naturally occurring  $\mathtt{Eamino}$  acids

<400> 686

Met Pro Arg Ala Pro Trp Arg Ile Pro Leu Cys Ala Leu Pro Thr Leu

1 10 15

Cys Leu Gly Ser Pro Leu Pro Ser Gln Pro Thr His Pro Ile Xaa Tyr 20 25 30

Asp His Arg Ala Pro Thr Trp Lys Met Ala His Pro Gly Gly Pro Arg 35 40 45

Ser Ser His Ser Pro Arg Thr Trp Xaa Thr Pro Ser Ser Gln Thr Lys 50 55 60

Ala Ala Leu Pro Ala Gly Gly Ala Arg Asn Ser Pro Leu Gln Leu Cys 65 70 75 80

Thr Arg Ser Arg Phe Cys Gly Thr ProMet
85

<210> 687

<211> 308

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (87)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (185)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 687

Met Pro Val Pro Trp Phe Leu Leu Ser Leu Ala Leu Gly Arg Ser Pro 1 5 10 15

Val Val Leu Ser Leu Glu Arg Leu Val Gly Pro Gln Asp Ala Thr His 20 25 30

Cys Ser Pro Gly Leu Ser Cys Arg Leu Trp Asp Ser Asp Ile Leu Cys 35 40 45

Leu Pro Gly Asp Ile Val Pro Ala Pro Gly Pro Val Leu Ala Pro Thr 50 55 60

His Leu Gln Thr Glu Leu Val Leu Arg Cys Gln Lys Glu Thr Asp Cys 65 70 75 80

Asp Leu Cys Leu Arg Val Xaa Val His Leu Ala Val His Gly His Trp 85 90 95

Glu Glu Pro Glu Asp Glu Glu Lys Phe Gly Gly Ala Ala Asp Leu Gly
100 105 110

Val Glu Glu Pro Arg Asn Ala Ser Leu Gln Ala Gln Val Val Leu Ser 115 120 125

Phe Gln Ala Tyr Pro Thr Ala Arg Cys Val Leu Leu Glu Val Gln Val 130 135 140

Pro Ala Ala Leu Val Gln Phe Gly Gln Ser Val Gly Ser Val Val Tyr 145 150 155 160

Asp Cys Phe Glu Ala Ala Leu Gly Ser Glu Val Arg Ile Trp Ser Tyr 165 170 175

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Thr Gln Pro Arg Tyr Glu Lys Glu Xaa Asn His Thr Gln Gln Leu Pro
180 185 190
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Asp Cys Arg Gly Leu Glu Val Trp Asn Ser Ile Pro Ser Cys Trp Ala 195 200 205

Leu Pro Trp Leu Asn Val Ser Ala Asp Gly Asp Asn Val His Leu Val 210 220

Leu Asn Val Ser Glu Glu Gln His Phe Gly Leu Ser Leu Tyr Trp Asn 225 235 240

Gln Val Gln Gly Pro Pro Lys Pro Arg Trp His Lys Asn Leu Thr Gly 245 250 255

Pro Gln Ile Ile Thr Leu Asn His Thr Asp Leu Val Pro Cys Leu Cys 260 265 270

Ile Gln Val Trp Pro Leu Glu Pro Asp Ser Val Arg Arg Thr Ser Ala 275 280 285

Pro Ser Gly Arg Thr Pro Ala His Thr Arg Thr Ser Gly Lys Pro Pro 290 295 300

Asp Cys Asp Cys 305

<210> 688

<211> 55

<212> PRT

<213> Homo sapiens

<400> 688

Met Ser Ser Asp Phe Leu Cys Phe Phe Phe Lys Leu Cys Asn Gln Me 1 5 10 15

Ile Leu Cys Phe Phe Phe Arg Gly Ala Glu Tyr Trp Phe Leu Leu 20 25 30

Val Val Phe Ser Phe Leu Cys His Ser Cys Phe Phe Phe Val Phe Ser 35 40 45

Val Ser Asn Thr Ile Cys Ile
50 55

<210> 689

<211> 44

<212> PRT

<213> Homo sapiens

<400> 689

Met Asp Leu Tyr Phe Phe Leu Leu Ala Gly Ile Gln Ala Val Thr Ala 1 5 10 15 Leu Leu Phe Val Trp Ile Ala Gly Arg Tyr Glu Arg Ala Ser Gln Gly 20 25 30

Pro Ala Ser His Ser Arg Phe Ser Arg Asp Arg Gly 35 40

<210> 690

<211> 98

<212> PRT

<213> Homo sapiens

<400> 690

Met His Cys Cys Gln Leu Pro Trp Arg Cys Ala Gln Ala Pro Gln Glu
1 5 10 15

Ala Phe Leu Cys Leu Leu Phe Leu Ile Leu Val Le Val Leu Leu 20 25 30

Gly Cys Ser Arg Gly Leu Pro Gly His Thr Pro Trp Arg Leu His Pro 35 40 45

Ala Ala Ala Leu Leu Ala Pro Leu Leu His Asp Ala Leu Gly Ad
50 55 60

Cys Gly Phe Gln Gly Pro Glu Tyr Leu Leu Pro Cys Leu Leu Pro Leu 65 70 75 80

Pro Lys Pro Gly Gln Leu Gln Gly Pro Trp Gly Pro Leu Trp Ala Leu 85 90 95

Leu Pro

<210> 691

<211> 22

<212> PRT

<213> Homo sapiens

<400> 691

Leu Pro Arg Pro Cys Ala Pro Ser Pro Val Trp Arg Gln Val Gly Arg
1 5 10

Glu Glu Ala Ser Leu Leu 20

<210> 692

<211> 25

<212> PRT

<213> Homo sapiens

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<220>
<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 692
Cys Ala Val Arg Phe Arg Glu Gln Xæ Ala Pro Glu Arg Val Phe Leu
Pro Thr Arg Gly Arg Lys Ser Glu Pro
              20
<210> 693
<211> 108
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (48)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (55)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring Eamino acids
<220>
<221> SITE
<222> (67)
<223> Xaa equals any of the naturally occurring Eamino acids
<400> 693
Met Phe Tyr Lys Leu Thr Leu Ile Leu Cys Glu Leu Ser Val Ala Gly
                                      10
Val Thr Gln Ala Ala Ser Gln Arg Pro Leu Gln Arg Leu Pro Arg His
Ile Cys Ser Gln Arg Asn Pro Pro Gly Arg Cys Leu Leu Lys Ala Xaa
         35
                                                  45
Leu Gln Thr Thr Trp Gly Xaa Pro Asp Xaa Gln Phe Pro Gly Cys Pro
His Pro Xaa Arg Val Thr Leu Asn Ala Arg Gln Met Gly Asn Gly Lys
65
Glu Lys Lys Ala Ala Asp Leu Lys LeuLys Phe Pro Gln Lys Arg Phe
                                     90
```

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Tyr Leu Ser Ala Phe Ser Glu Arg Ile Lys Ala Phe 100 \ 105
```

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<210> 694
<211> 73
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (38)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (48)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (54)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (55)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (68)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 694
Met Phe Tyr Lys Leu Thr Leu Ile Leu Qs Glu Leu Ser Val Ala Gly
Val Thr Gln Ala Ala Ser Gln Arg Pro Leu Gln Arg Leu Pro Arg His
Ile Cys Ser Gln Arg Xaa Pro Pro Gly Arg 🗣s Leu Leu Lys Ala Xaa
Leu Gln Thr Trp Xaa Xaa Pro Asp Lys Pro Ile Pro Arg Leu Ser
Pro Pro Leu Xaa Ser Asp Pro Lys Arg
 65
                     70
<210> 695
```

<211> 81 <212> PRT

<213> Homo sapiens

<400> 695

Met Ser Lys Arg Ser Ala Ser Phe Ile Leu Leu Pro Leu Leu Phe Leu  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Lys Gly Ser Phe Ala Lys Leu Asn Ala Arg Ile Ser Asp CysLeu Glu 20 25 30

Glu Arg Tyr Cys His Asn Leu Trp Met Val Phe Gln Gly Cys Val Ile  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Thr Glu Leu His Leu Ser Arg Met Ser Lys Thr Leu Ser Ser Leu Cys 50 60

Tyr Asp Phe Val Ile Asn Val Tyr Ile Phe Phe Lys Phe Leu Asp Ile 65 70 75 80

Thr

<210> 696

<211> 313

<212> PRT

<213> Homo sapiens

<400> 696

Met Ala Gln Leu Glu Gly Tyr Tyr Phe Ser Ala Ala Leu Ser Cys Thr 1 5 10 15

Phe Leu Val Ser Cys Leu Leu Phe Ser Ala Phe Ser Arg Ala Leu Arg 20 25 30

Glu Pro Tyr Met Asp Glu Ile Phe His Leu Pro Gln Ala Gln Arg Tyr 35 40 45

Cys Glu Gly His Phe Ser Leu Ser Gln Trp Asp Pro Met Ile Thr Thr 50 60

Leu Pro Gly Leu Tyr Leu Val Ser Ile Gly Val Ile Lys Pro Ala Ile 65 70 75 80

Trp Ile Phe Gly Trp Ser Glu His Val Val Cys Ser Ile Gly Met Leu 85 90 95

Arg Phe Val Asn Leu Leu Phe Ser Val Gly Asn Phe Tyr Leu Leu Tyr 100 105 110

Leu Leu Phe Cys Lys Val Gln Pro Arg Asn Lys Ala Ala Ser Ser Ile 115 120 125

Gln Arg Val Leu Ser Thr Leu Thr Leu Ala Val Phe Pro Thr Leu Tyr 130 140

Phe Phe Asn Phe Leu Tyr Tyr Thr Glu Ala Gly Ser Met Phe Phe Thr

145 150 155 Leu Phe Ala Tyr Leu Met Cys Leu TyrGly Asn His Lys Thr Ser Ala 165 170 Phe Leu Gly Phe Cys Gly Phe Met Phe Arg Gln Thr Asn Ile Ile Trp 185 Ala Val Phe Cys Ala Gly Asn Val Ile AlaGln Lys Leu Thr Glu Ala 200 Trp Lys Thr Glu Leu Gln Lys Lys Glu Asp Arg Leu Pro Pro Ile Lys Gly Pro Phe Ala Glu Phe Arg Lys Ile Leu Gln Phe Leu Leu AlaTyr 230 235 Ser Met Ser Phe Lys Asn Leu Ser Met Leu Leu Leu Thr Trp Pro 250 245 Tyr Ile Leu Leu Gly Phe Leu Phe Cys Ala Phe Val ValAsn Gly Gly Ile Val Ile Gly Asp Arg Ser Ser His Glu Ala Cys Leu His Phe Pro Gln Leu Phe Tyr Phe Phe Ser Phe Thr Leu Phe Phe Ser Phe Pro 290 295 His Leu Leu Ser Gln Gln Ile Asn Lys 305 310 <210> 697 <211> 134 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (8) <223> Xaa equals any of the naturally occurring Lamino acids <220> <221> SITE <222> (73) <223> Xaa equals any of the naturally occurring Lamino acids <220> <221> SITE

<223> Xaa equals any of the naturally occurring bamino acids

Met Ala Gln Leu Glu Gly Tyr Xaa Phe Ser Aa Ala Leu Ser Cys Thr

<222> (76)

<400> 697

```
Phe Leu Val Ser Cys Leu Leu Phe Ser Ala Phe Ser Arg Ala Leu Arg
             20
                                                      30
Glu Pro Tyr Met Asp Glu Ile Phe His Leu Pro &n Ala Gln Arg Tyr
                              40
Cys Glu Gly His Phe Ser Leu Ser Gln Trp Asp Pro Met Ile Thr Thr
Leu Pro Gly Leu Tyr Leu Val Ser Xaa Gly Val Xaa Lys Pro Ala Ile
Trp Ile Phe Gly Trp Ser Glu His Val Val Cys Ser Ile Gly Met Leu
                 85
Arg Phe Val Asn Leu Leu Phe Ser Val Gly Asn Phe Tyr Leu Leu Tr
            100
                                105
Leu Leu Phe Cys Lys Tyr Asn Pro Glu Thr Arg Leu Pro Gln Val Ser
                            120
                                                 125
Arg Glu Ser Cys Gln His
    130
<210> 698
<211> 122
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (89)
<223> Xaa equals any of the naturally occurring Famino acids
<220>
<221> SITE
<222> (91)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
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<220>

<221> SITE <222> (94)

<221> SITE <222> (97)

<223> Xaa equals any of the naturally occurring Lamino acids

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (98)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 698

Met His Arg Ser Glu Pro Phe Leu Lys Met Ser Leu Leu Ile Leu Leu 1 5 10 15

Phe Leu Gly Leu Ala Glu Ala Cys Thr Pro Arg Glu Val Asn Leu Leu 20 25 30

Lys Gly Ile Ile Gly Leu Met Ser Arg Leu Ser Pro Asp Glu Ile Leu 35 40 45

Gly Leu Leu Ser Leu Gln Val Leu His Glu Glu Thr Ser Gly Cys Lys 50 60

Glu Glu Val Lys Pro Phe Ser Gly Thr Thr Pro Ser Arg Lys Pro Leu 65 70 75 80

Pro Lys Arg Glu Glu His Val Glu Xaa Pro Xaa Asn Ala Xaa Thr Trp 85 90 95

Xaa Xaa Thr Tyr Leu Phe Val Ser Tyr Asn Lys Gly Asp Trp Phe Thr 100 105 110

Phe Ser Ser Gln Val Leu Leu Pro Leu Leu 115 120

<210> 699

<211> 43

<212> PRT

<213> Homo sapiens

<400> 699

Met Phe Asn Leu Ser Phe Phe Thr Leu Tyr Gly Leu Cys Met Leu Lys 1 5 10 15

Leu His Ser Ala Ser Ser Trp Phe Thr Leu Leu Leu Leu Ile Ser Leu 20 25 30

Phe Leu Ser Val Val Tyr Cys Gln Ser Thr Asn 35 40

<210> 700

<211> 2

<212> PRT

<213> Homo sapiens

<400> 700

Leu His

<210> 701 <211> 166 <212> PRT

<213> Homo sapiens

<400> 701

Met Ser Phe Thr Val Ser Met Ala Ile Gly Leu Val Leu Gly Gly Phe 1 5 10 15

Ile Trp Ala Val Phe Ile Cys Leu Ser Arg Arg Arg Ala Ser Ala 20 25 30

Pro Ile Ser Gln Trp Ser Ser Ser Arg Ser Arg Ser Ser Tyr Thr 35 40 45

His Gly Leu Asn Arg Thr Gly Phe Tyr Arg His Ser Gly Cys Glu Arg 50 60

Arg Ser Asn Leu Ser Leu Ala Ser Leu Thr Phe Gln ArgGln Ala Ser 65 70 75 80

Leu Glu Gln Ala Asn Ser Phe Pro Arg Lys Ser Ser Phe Arg Ala Ser 85 90 95

Thr Phe His Pro Phe Leu Gln Cys Pro Pro Leu ProVal Glu Thr Glu 100 105 110

Ser Gln Leu Val Thr Leu Pro Ser Ser Asn Ile Ser Pro Thr Ile Ser 115 120 125

Thr Ser His Ser Leu Ser Arg Pro Asp Tyr Trp Ser Ser Asn SerLeu 130 135

Arg Val Gly Leu Ser Thr Pro Pro Pro Pro Ala Tyr Glu Ser Ile Ile 145 150 155 160

Lys Ala Phe Pro Asp Ser 165

<210> 702

<211> 26

<212> PRT

<213> Homo sapiens

<400> 702

Gly Leu Phe Leu Gly Gln Met Asn Trp Ile Phe Ser Cys Cys Phe Ser 1 5 10 15

Asn Asn Val Thr Thr Val Lys Lys Arg 20 25

<210> 703

<211> 20

<212> PRT

<213> Homo sapiens

```
Arg Tyr Ala Thr
<210> 704
<211> 11
<212> PRT
<213> Homo sapiens
<400> 704
Met Ser Gly Gly Leu Ser Phe Leu Leu Val
<210> 705
<211> 108
<212> PRT
<213> Homo sapiens
<400> 705
Met Lys Ala Leu Cys Leu Leu Leu Pro Val LeuGly Leu Leu Val
Ser Ser Lys Thr Leu Cys Ser Met Glu Glu Ala Ile Asn Glu Arg Ile
Gln Glu Val Ala Gly Ser Leu Ile Phe Arg Ala Ile SerSer Ile Gly
Leu Glu Cys Gln Ser Val Thr Ser Arg Gly Asp Leu Ala Thr Cys Pro
     50
                         55
Arg Gly Phe Ala Val Thr Gly Cys Thr Cys Gly Ser Ala Cys Gly Ser
Trp Asp Val Arg Ala Glu Thr Thr Cys His Cys Gln Cys Ala Gly Met
Asp Trp Thr Gly Ala Arg Cys Cys Arg Val Gln Pro
            100
<210> 706
<211> 130
<212> PRT
<213> Homo sapiens
<400> 706
Ser Thr Cys Cys Gly Trp Gly Pro Leu Gly His Ser Arg Val Arg Gly
```

Arg Leu Leu Asn Leu Ser Val Pro Met Phe Thr Phe Ile Val Val Lys

<400> 703

Cys His Cys His Leu Gly His Val GlyArg His Gln His Phe Val Val 25 Thr Asn Ser Thr Val Thr Asn Ile Phe Gly Gln Ile Pro Phe Tyr Thr 40 Ser Arg Gln Leu Leu Val Cys Asn Pro Thr Gly GlnArg Glu Gly Pro 55 Val Thr Trp Leu Ser His Cys Pro Ala Pro Gln Met Val Leu Gly Leu Leu Phe Ser Leu Gly Pro Ala Asn Thr Thr Val Phe Thr SerAla His Trp Leu Ser Ala Val Val Pro Gly Ser Gln Trp His Val Ser Pro Arg 100 105 Ser Ser Leu Ile Pro Gln His Thr Pro Lys Gly Ser Val Ala AsnThr 120 125 Leu Asn 130 <210> 707 <211> 122 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (19) <223> Xaa equals any of the naturally occurring Eamino acids <220> <221> SITE <222> (73) <223> Xaa equals any of the naturally occurring Lamino acids <400> 707 Lys Ala Pro Ser Ser His Pro Gly Leu Thr Cys Val Ser Leu Ser Arg Leu Gln Xaa Ser Leu Ser Leu Cys Phe Pro &r Gly Pro Cys Trp Ala 25

Gly Leu Leu Ser Ser Leu Ala Leu Ala Gly Gly Ala Pro Gly Ala Leu

Pro Pro Trp Gln Pro Gly Gln Asp Ser Lys Met Arg Thr Aa Glu Leu

Val Gly Gly Ser His Gly Pro Ala Xaa Gly Pro Gly Glu Ala Glu Pro

10

15

65 70 75 80

Glu Pro Thr Ala Val Val Leu Trp Thr Val Asp Pro Glu Gly €u 85 90 95

Gly Gln Val Pro Ala Glu Gly Pro Gly Gly Leu Cys Val Pro Leu Gly 100 105 110

Pro Gly Ala Leu Val Thr Trp Thr Pro Gly 115 120

<210> 708

<211> 243

<212> PRT

<213> Homo sapiens

<400> 708

Met Gly Thr Leu Pro Trp Leu Leu Ala Phe Phe Ile Leu Gly Leu Gln
1 10 15

Ala Trp Asp Thr Pro Thr Ile Val Ser Arg Lys Gh Trp Gly Ala Arg 20 25 30

Pro Leu Ala Cys Arg Ala Leu Leu Thr Leu Pro Val Ala Tyr Ile Ile 35 40 45

Thr Asp Gln Leu Pro Gly Met Gln Cys Gln Gln Gln Ser Val Cys Ser 50 60

Gln Met Leu Arg Gly Leu Gln Ser His Ser Val Tyr Thr Ile Gly Trp 65 70 75 80

Cys Asp Val Ala Tyr Asn Phe Leu Val Gly Asp Asp Gly Arg Val Tyr 85 90 95

Glu Gly Val Gly Trp Asn Ile Gln Gly Leu His Thr Gln Gly Tyr Asn 100 105 110

Asn Ile Ser Leu Gly Ile Ala Phe Phe Gly Asn Lys Ile Ser Ser Ser 115 120 125

Pro Ser Pro Ala Ala Leu Ser Ala Ala Glu Gly Leu Ile Ser Tyr Ala 130 135 140

Ile Gln Lys Gly His Leu Ser Pro Arg Tyr Ile Gln Pro Leu Leu 145 150 155 160

Lys Glu Glu Thr Cys Leu Asp Pro Gln His Pro Val Met Pro Arg Lys 165 170 175

Val Cys Pro Asn Ile Ile Lys Arg Ser Ala Trp Glu Ala Arg Glu Thr \$180\$

His Cys Pro Lys Met Asn Leu Pro Ala Lys Tyr Val Ile Ile His 195 200 205

```
Thr Ala Gly Thr Ser Cys Thr Val Ser Thr Asp Cys Gln Thr Val Val 210 220
```

Arg Asn Ile Gln Ser Phe His Met Asp Thr Arg Asn Phe Cys Asp Ile 225 230 235 240

Gly Tyr Gln

<210> 709

<211> 154

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (150)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 709

Met Ala Arg His Gly Leu Pro Leu Leu Pro Leu Leu Ser Leu Leu Val 1 5 10 15

Gly Ala Trp Leu Lys Leu Gly Asn Gly Gln Ala Thr 8r Met Val Gln 20 25 30

Leu Gln Gly Gly Arg Phe Leu Met Gly Thr Asn Ser Pro Asp Ser Arg 35 40 45

Asp Gly Glu Gly Pro Val Arg Glu Ala Thr Val Lys Pro Phe Ala Ie 50 55 60

Asp Ile Phe Pro Val Thr Asn Lys Asp Phe Arg Asp Phe Val Arg Glu 65 70 75 80

Lys Lys Tyr Arg Thr Glu Ala Glu Met Phe Gly Trp Ser Phe Val Phe  $85 \hspace{1cm} 90 \hspace{1cm} 95$ 

Glu Asp Phe Val Ser Asp Glu Leu Arg Asn Lys Ala Thr Gln Pro Met 100 105 110

Lys Ser Val Leu Trp Trp Leu Pro Val Glu Lys Ala Phe Trp Arg Gln 115 120 125

Pro Ala Gly Pro Gly Ser Gly Ile Arg Glu Arg Leu Glu His Pro Val 130 135 140

Leu His Val Ser Trp Xaa Asp Ala Arg Ala 145

<210> 710

<211> 57

```
<212> PRT
<213> Homo sapiens
<400> 710
Met Pro Cys Thr Cy
1
Leu Val Ala Val Il
```

Met Pro Cys Thr Cys Thr Trp Arg Asn Trp Arg Gln Trp Ile Arg Pro
1 10 15

Leu Val Ala Val Ile Tyr Leu Val Ser Ile Val Val Ala Val Pro Leu 20 25 30

Cys Val Trp Glu Leu Gln Lys Leu Glu Val Gly Ile His Thr Lys Ala  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Trp Phe Ile Ala Gly Ile Phe Leu Leu 50 55

<210> 711 <211> 107

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (92)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 711

Met Val Arg Tyr Thr Tyr Ser Met Leu Ser Val Ile Gly Ile Ser Tyr 1 5 10 15

Ala Val Leu Thr Trp Leu Ser Gln Thr Leu Trp Met Pro Ile Tyr Pro 20 25 30

Leu Cys Val Leu Ala Glu Ala Phe Ala Ile Tyr Gln Ser Leu Pro Tyr 35 40 45

Phe Glu Ser Phe Gly Thr Tyr Ser Thr Lys Leu Pro Phe Asp Leu Ser 50 55 60

Ile Tyr Phe Pro Tyr Val Leu Lys Ile Tyr Leu Met Met Leu Phe Ile 65 70 75 80

Gly Met Tyr Phe Thr Tyr Ser His Leu Tyr Ser Xaa Arg Arg Asp Ile 85 90 95

Leu Gly Ile Phe Pro Ile Lys Lys Lys Met 100 105

<210> 712

<211> 37

<212> PRT

<213> Homo sapiens

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<400> 712
Met Val Arg Tyr Thr Tyr Ser Met Leu Ser Val Ile Gly Ile Ser Tyr
Ala Val Leu Thr Trp Ala Gln Ser Asn Thr Met Asp Ala Asn Leu Ser
                                25
Phe Val Cys Ser Cys
        35
<210> 713
<211> 46
<212> PRT
<213> Homo sapiens
<400> 713
Met Lys Ser Gln Cys Tyr Ser Pro Ser Tyr Phe Ala Phe Phe Cys Leu
Val Phe Phe Gln Ile Thr Ser Ala Ser Ser Gln Thr Leu Arg Gly His
Val Leu Cys Arg Thr Thr Leu Arg Asp Ser Ser Ala Tyr Cys
                             40
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Ala Val His Thr Ala Arg Gly Leu Arg Gly Arg Pro Arg Arg Gln Leu 35 40 45

Leu Arg Pro Leu Arg Pro Ala Gln Gly Leu Ala Pro Gly Arg His Arg 50 55 60

Leu Arg Pro Ala Val Leu Pro Leu His Leu Gln Pro Leu Pro Gly Leu 65 70 75 80

Trp Gly Gly His Ala Glu Trp Ala Ala Leu Leu Tyr Tyr Gly Pro Phe 85 90 95

- Ile Val Ile Phe Gln Phe Gly Trp Ala Ser Thr Gln Ile Ser His Leu 100 105 110
- Ser Leu Ile Pro Glu Leu Val Thr Asn Asp His Glu Lys Val Glu Leu 115 120 125
- Thr Ala Leu Arg Tyr Ala Phe Thr Val Val Ala Asn Ile Thr Val Tyr 130 135 140
- Gly Ala Ala Trp Leu Leu His Leu Gln Gly Ser Ser Arg Val Glu 145 150 155 160
- Pro Thr Gln Asp Ile Ser Ile Ser Asp Gln Leu Gly Gly Gln Asp Val 165 170 175
- Pro Val Phe Arg Asn Leu Ser Leu Leu Val Val Gly Val Gly Ala Val 180 185 190
- Phe Ser Leu Leu Phe His Leu Gly Thr Arg Glu Arg Arg Pro His 195 200 205
- Ala Glu Glu Pro Gly Glu His Thr Pro LeuLeu Ala Pro Ala Thr Ala 210 215 220
- Gln Pro Leu Leu Trp Lys His Trp Leu Arg Glu Pro Ala Phe Tyr 225 230 235 240
- Gln Val Gly Ile Leu Tyr Met Thr Thr Arg Leu IleVal Asn Leu Ser 245 250 255
- Gln Thr Tyr Met Ala Met Tyr Leu Thr Tyr Ser Leu His Leu Pro Lys 260 265 270
- Lys Phe Ile Ala Thr Ile Pro Leu Val Met Tyr Leu SerGly Phe Leu 275 280 285
- Ser Ser Phe Leu Met Lys Pro Ile Asn Lys Cys Ile Gly Arg Asn Met 290 295 300
- Thr Tyr Phe Ser Gly Leu Leu Val Ile Leu Ala Phe Ala Ala Trp Val 305 310 315 320
- Ala Leu Ala Glu Gly Leu Gly Val Ala Val Tyr Ala Ala Ala Val Leu 325 330 335
- Leu Gly Ala Gly Cys Ala Thr Ile Leu Val Thr Ser Leu Ala Met Thr 340 345 350
- Ala Asp Leu Ile Gly Pro His Thr Asn Ser Gly Xaa Phe Val Tyr Gly 355 360 365
- Ser Met Ser Phe Leu Asp Lys Val Ala Asn Gly Leu Ala Val Met Ala 370 375 380
- Ile Gln Ser Leu His Pro Cys Pro Ser Glu Leu Cys Cys Arg Ala Cys 385 390 395 400

- Val Ser Phe Tyr His Trp Ala Met Val Ala Val Thr Gly Gly Val Gly 405 410 415
- Val Ala Ala Leu Cys Leu Cys Ser Leu Leu Trp Pro Thr Arg
  420 425 430
- Leu Arg Arg Trp Asp Arg Asp Ala Arg Pro 435
- <210> 715
- <211> 309
- <212> PRT
- <213> Homo sapiens
- <220>
- <221> SITE
- <222> (26)
- <223> Xaa equals any of the naturally occurring Hamino acids
- <220>
- <221> SITE
- <222> (84)
- <223> Xaa equals any of the naturally occurring Lamino acids
- <220>
- <221> SITE
- <222> (111)
- <223> Xaa equals any of the naturally occurring Famino acids
- <400> 715
- Ala Ala Asp Asn Tyr Gly Ile Pro Arg Ala Cys Arg Asn Ser Ala Arg 1 10 15
- Ser Tyr Gly Ala Ala Trp Leu Leu Leu XaaPro Ala Gly Ser Ser Arg 20 25 30
- Val Glu Pro Thr Gln Asp Ile Ser Ile Ser Asp Gln Leu Gly Gly Gln 35 40 45
- Asp Val Pro Val Phe Arg Asn Leu Ser Leu Leu Val ValGly Val Gly 50 55 60
- Ala Val Phe Ser Leu Leu Phe His Leu Gly Thr Arg Glu Arg Arg 65 70 75 80
- Pro His Ala Xaa Glu Pro Gly Glu His Thr Pro Leu Leu Ala Pro<br/>Ala 85 90 95
- Thr Ala Gln Pro Leu Leu Trp Lys His Trp Leu Arg Glu Xaa Ala 100 105 110
- Phe Tyr Gln Val Gly Ile Leu Tyr Met Thr Thr Arg Leu Ile Val Asn 115 120 125

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Leu Ser Gln Thr Tyr Met Ala Met Tyr Leu Thr Tyr Ser Leu His Leu
Pro Lys Lys Phe Ile Ala Thr Ile Pro Leu Val Met Tyr Leu Ser Gly
                   150
Phe Leu Ser Ser Phe Leu Met Lys Pro Ile Asn Lys Cys Ile Gly Arg
                165
                                    170
Asn Met Thr Tyr Phe Ser Gly Leu Leu Val Ile Leu Ala Phe Ala Ala
Trp Val Ala Leu Ala Glu Gly Leu Gly Val Ala Val Tyr Ala Ala Ala
Val Leu Leu Gly Ala Gly Cys Ala Thr Ile Leu Val Thr Ser Leu Ala
                        215
Met Thr Ala Asp Leu Ile Gly Pro His Thr Asn Ser Gly Ala Phe Val
                    230
                                        235
Tyr Gly Ser Met Ser Phe Leu Asp Lys Val Ala Asn Gly Leu Ala Val
                245
                                   250
Met Ala Ile Gln Ser Leu His Pro Cys Pro Ser Glu Leu Cys Cys Arg
                                265
Ala Cys Val Ser Phe Tyr His Trp Ala Met Val Ala Val Thr Gly Gly
Val Gly Val Ala Ala Leu Cys Leu Cys Ser Leu Leu Trp Pro
                        295
Thr Arg Leu Arg Arg
305
<210> 716
<211> 243
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (26)
<223> Xaa equals any of the naturally occurring bamino acids
<220>
<221> SITE
<222> (84)
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<223> Xaa equals any of the naturally occurring Lamino acids

<223> Xaa equals any of the naturally occurring bamino acids

<220> <221> SITE <222> (111) <400> 716

Ala Ala Asp Asn Tyr Gly Ile Pro Arg Ala Cys Arg Asn Ser Ala Arg 1 5 10

Ser Tyr Gly Ala Ala Trp Leu Leu Leu Xaa Pro Ala Gly Ser Ser Arg 20 25 30

Val Glu Pro Thr Gln Asp Ile Ser Ile Ser Asp Gln Leu Gly Gln
35 40 45

Asp Val Pro Val Phe Arg Asn Leu Ser Leu Leu Val Val Gly 50 55 60

Ala Val Phe Ser Leu Leu Phe His Leu Gly Thr Arg Glu Arg Arg 65 70 75 80

Pro His Ala Xaa Glu Pro Gly Glu His Thr Pro Leu Leu Ala Pro Ala 85 90 95

Thr Ala Gln Pro Leu Leu Trp Lys His Trp Leu Arg Glu Xaa Ala 100 105 110

Phe Tyr Gln Val Gly Ile Leu Tyr Met Thr Thr Arg Leu Ile Val Asn 115 120 125

Leu Ser Gln Thr Tyr Met Ala Met Tyr Leu Thr Tyr Ser Leu His Leu 130 135 140

Pro Lys Lys Phe Ile Ala Thr Ile Pro Leu Val Met Tyr Leu Ser Gly 145 150 155 160

Phe Leu Ser Ser Phe Leu Met Lys Pro Ile Asn Lys Cys Ile Gly Arg 165 170 175

Asn Met Thr Tyr Phe Ser Gly Leu Leu Val Ile Leu Ala Phe Ala Ala 180 185 190

Trp Val Ala Leu Ala Glu Gly Leu GlyVal Ala Val Tyr Ala Ala 195 200 205

Val Leu Leu Gly Ala Gly Cys Ala Thr Ile Leu Val Thr Ser Leu Ala 210 215 220

Met Thr Ala Asp Leu Ile Gly Pro His Thr Asn Ser Gly LeuSer Cys 225 230 235 240

Thr Ala Pro

<210> 717

<211> 148

<212> PRT

<213> Homo sapiens

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<400> 717
Met Ala Gly Ser Pro Leu Leu Trp Gly Pro Arg Ala Gly Gly Val Gly
Leu Leu Val Leu Leu Leu Gly Leu Phe Arg Pro Pro Pro Ala Leu
Cys Ala Arg Pro Val Lys Glu Pro Arg Gly Leu Ser Ala Ala Ser Pro
Pro Leu Ala Arg Leu Ala Leu Leu Ala Ala Ser Gly Gly Gln Cys Pro
Glu Val Arg Arg Gly Arg Cys Arg Pro Gly Ala Gly Ala Gly Ala
Ser Ala Gly Ala Glu Arg Gln Glu Arg Ala Arg Ala Glu Ala Gln Arg
Leu Arg Ile Ser Arg Arg Ala Ser Trp Arg Ser Cys Cys Ala Ser Gly
Ala Pro Pro Ala Thr Leu Ile Arg Leu Trp Ala Trp Thr Thr Pro
                            120
Thr Arg Leu Gln Arg Ser Ser Leu Ala Leu Cys Ser Ala Pro Ala Leu
                        135
Thr Leu Pro Pro
145
<210> 718
<211> 92
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (61)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (68)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 718
Met Gly Ser Thr Trp Gly Ser Pro Gly Trp Val Arg Leu Ala Leu Cys
Leu Thr Gly Leu Val Leu Ser Leu Tyr Ala Leu His Val Lys Ala Ala
Arg Ala Arg Asp Arg Asp Tyr Arg Ala Leu Cys Asp Val Gly Thr Ala
```

- Ile Ser Cys Ser Arg Val Phe Ser Ser Arg Leu Pro Xaa Asp Thr Leu 50 60
- Gly Leu Cys Xaa Asp Ala Ala Glu Leu Pro Gly Val Ser Arg Trp Phe 65 70 75 80
- Cys Leu Pro Gly Leu Asp Pro Val Leu Arg Ala Leu 85 90
- <210> 719
- <211> 190
- <212> PRT
- <213> Homo sapiens
- <220>
- <221> SITE
- <222> (25)
- <223> Xaa equals any of the naturally occurring Lamino acids
- <400> 719
- Met Pro Val Pro Thr Leu Cys Leu Leu Trp Ala Leu Ala Met Val Thr 1 5 10 5
- Arg Pro Ala Ser Ala Ala Pro Met Xaa Gly Pro Glu Leu Ala Gln His
- Glu Glu Leu Thr Leu Leu Phe His Gly Thr Leu Gln Leu Gly Gln Ala 35 40 45
- Leu Asn Gly Val Tyr Arg Thr Thr Glu Gly Arg Leu Thr Lys Ala Arg 50 55 60
- Asn Ser Leu Gly Leu Tyr Gly Arg Thr Ile Glu Leu Leu Gly Gln Glu 65 70 75 80
- Val Ser Arg Gly Arg Asp Ala Ala Gln Glu Leu Arg Ala Ser Leu Leu 85 90 95
- Glu Thr Gln Met Glu Glu Asp Ile Leu Gln Leu Gln Ala Glu Ala Thr 100 105 110
- Ala Glu Val Leu Gly Glu Val Ala Gl<br/>n Ala Gln Lys Val Leu Arg Asp 115 120 125
- Ser Val Gln Arg Leu Glu Val Gln Leu Arg Ser Ala Trp Leu Gly Pro 130 140
- Ala Tyr Arg Glu Phe Glu Val Leu Lys AlaHis Ala Asp Lys Gln Glu 150 155 160
- Pro Thr Ser Tyr Gly Pro His Arg Pro Arg Gln Arg Gln Arg Glu 165 170 175
- Met Val Ala Gln Gln His Arg Leu Arg Gln Ile Gln Glu Arg

180 185 190

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<210> 720
<211> 65
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (24)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 720
Met Cys Lys Gly Leu Lys Asn Pro Glu Gly Leu Leu Leu Leu Leu
Leu Leu Leu Phe Thr Asp Thr Xaa Asn Ser His Cys Leu Pro Pro Tyr
                                 25
Leu Ser Cys Phe Leu His Glu Arg Gln Pro Glu Leu Gln Ser Val Cys
                             40
Ile Ser Ala Ala Tyr Val Leu Ala Pro Leu Gln Asn Pro Val Ser Ser
Leu
65
<210> 721
<211> 299
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (172)
<223> Xaa equals any of the naturally occurring Hamino acids
<220>
<221> SITE
<222> (174)
<223> Xaa equals any of the naturally occurring bamino acids
<400> 721
Gly Glu Glu Glu Glu Glu Glu Glu Glu Ile Ser Gly Leu Gly
Ala Gly Arg Arg Ser Ala Pro Ile Ala Val Gly Leu Gly Phe Leu Gly
Val Gly Gly Arg Gly Gly Ser Asp Met Glu Ala Asn Gly Ser Gln Gly
         35
                            4.0
```

Thr Ser Gly Ser Ala Asn Asp Ser Gln His Asp Pro Gly Lys Met Phe 50 60

Ile Gly Gly Leu Ser Trp Gln Thr SerPro Asp Ser Leu Arg Asp Tyr 65 70 75 80

Phe Ser Lys Phe Gly Glu Ile Arg Glu Cys Met Val Met Arg Asp Pro \$85\$ 90 95

Thr Thr Lys Arg Ser Arg Gly Phe Gly Phe Val Thr Phe Ala Asp Pro  $100 \,$   $105 \,$   $110 \,$ 

Ala Ser Val Asp Lys Val Leu Gly Gln Pro His His Glu Leu Asp Ser 115 120 125

Lys Thr Ile Asp Pro Lys Val Ala Phe Pro ArgArg Ala Gln Pro Lys 130 135 140

Met Val Thr Arg Thr Lys Lys Ile Phe Val Gly Gly Leu Ser Ala Asn 145 150 155 160

Thr Val Val Glu Asp Val Lys Gln Tyr Phe Glu Xaa PheXaa Lys Val 165 170 175

Glu Asp Ala Met Leu Met Phe Asp Lys Thr Thr Asn Arg His Arg Gly 180 185 190

Phe Gly Phe Val Thr Phe Glu Asn Glu Asp Val Val Glu LysVal Cys 195 200 205

Glu Ile His Phe His Glu Ile Asn Asn Lys Met Val Glu Cys Lys Lys 210 215 220

Ala Gln Pro Lys Glu Val Met Phe Pro Pro Gly Thr Arg Gly Arg Ala 225 230 235 240

Arg Gly Leu Pro Tyr Thr Met Asp Ala Phe Met Leu Gly Met Gly Met 245 250 255

Leu Gly Glu Ser Gly Gln Asp Arg Arg Ser Pro Trp Thr Gly Arg Ala 260 265 270

Met Glu Ala Ser Thr Pro Asn Trp Val Thr Tyr Gln Trp Gly Lys Leu 275 280 285

Leu His Leu Ser Lys Pro Gln Phe Pro Cys Leu 290 295

<210> 722

<211> 54

<212> PRT

<213> Homo sapiens

<400> 722

Met Ser Val Trp Pro Arg Ser Thr Leu Leu Phe Cys Leu Leu Ser Leu

```
10
                                                         15
 1
Ser Thr Gly Leu Phe Leu Asp Lys Leu Gly Ile Ile Pro Ile Leu
                                 25
Leu Cys Gly Trp Lys Leu Asn Val Ile Met Met Cys Val Arg Cys Leu
                             40
His Ser Ala Trp Arg Tyr
    50
<210> 723
<211> 306
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (171)
<223> Xaa equals any of the naturally occurring bamino acids
<220>
<221> SITE
<222> (180)
<223> Xaa equals any of the naturally occurring Hamino acids
<220>
<221> SITE
<222> (182)
<223> Xaa equals any of the naturally occurring Famino acids
<220>
<221> SITE
<222> (188)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (208)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (210)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (211)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (218)
<223> Xaa equals any of the naturally occurring L-amino acids
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- <220>
- <221> SITE
- <222> (219)
- <223> Xaa equals any of the naturally occurring Lamino acids
- <400> 723
- Met Ala Leu Arg Leu Leu Arg Arg Ala Ala Arg Gly Ala Ala Ala 1 5 10 15
- Ala Leu Leu Arg Leu Lys Ala Ser Leu Ala Ala Asp Ile Pro Arg Leu 20 25 30
- Gly Tyr Ser Ser Ser His His Lys Tyr Ile Pro Arg Arg Ala Val
- Leu Tyr Val Pro Gly Asn Asp Glu Lys Lys Ile Lys Lys Ile Pro Ser 50 60
- Leu Asn Val Asp Cys Ala Val Leu Asp Cys Glu Asp Gly Val Ala Ala 65 70 75 80
- Asn Lys Lys Asn Glu Ala Arg Leu Arg Ile Val Lys Thr Leu Glu Asp 85 90 95
- Ile Asp Leu Gly Pro Thr Glu Lys Cys Val Arg Val Asn Ser Val Ser 100 105 110
- Ser Gly Leu Ala Glu Glu Asp Leu Glu Thr Leu Leu Gln Ser Arg Val 115 120 125
- Leu Pro Ser Ser Leu Met Leu Pro Lys Val Glu Ser Pro Glu Glu Ile 130 135 140
- Gln Trp Ala Val Cys Glu Glu Thr Leu Lys Val Gly Pro Gln Val Gly 145 150 155
- Leu Phe Leu Asp Ala Val Arg Phe Trp Arg Xaa Arg Leu Ser Ser His 165 170 175
- Ile Gly Ala Xaa Ser Xaa Lys Glu Th Leu Asp Xaa Leu Tyr Ala Arg 180 185 190
- Gln Lys Ile Val Val Ile Ala Lys Ala Phe Gly Leu Gln Ala Val Xaa 195 200 205
- Leu Xaa Xaa Ile Asp Phe Arg Asp Gly Xaa Xaa Le Leu Arg Gln Ser 210 215 220
- Arg Glu Gly Ala Ala Met Gly Phe Thr Gly Lys Gln Val Ile His Pro 225 230 235 240
- Asn Gln Ile Ala Val Val Gln Glu Gln Phe Ser Pro Ser P $\sigma$  Glu Lys 245 250 255
- Ile Lys Trp Ala Glu Glu Leu Ile Ala Ala Phe Lys Glu His Gln Gln 260 265 270

Leu Gly Lys Gly Ala Phe Thr Phe Gln Gly Ser Met Ile Asp Me Pro 275 280 285

Leu Leu Lys Gln Ala Gln Asn Thr Val Thr Leu Ala Thr Ser Ile Lys 290 295 300

Glu Lys 305

<210> 724

<211> 64

<212> PRT

<213> Homo sapiens

<400> 724

Met Val Ser Pro Leu Ile Ser Ala Leu Phe His Val Pro Phe Leu Trp 1 5 10 15

Leu Gly Met Phe Phe Pro His Ser Leu Ser Gly Pro Phe Pro Ser His 20 25 30

Leu Arg Arg Ala Ser Ser Ser Arg Lys Pro Leu Val Lys Pro Pro Arg

Ala Arg Gln Tyr Pro Pro Leu Ala Ser Ser Gly Tyr Arg Gly Arg Ile 50 55 60

<210> 725

<211> 26

<212> PRT

<213> Homo sapiens

<400> 725

Met Ser Phe Pro His Ala Ser Thr Leu Pro Phe His Lys Leu Ser Asp 1 5 10 15

Leu Gln His Thr Leu Pro Asn His Gln Gly \$20\$

<210> 726

<211> 50

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

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<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (10)
<223> Xaa equals any of the naturally occurring Hamino acids
<220>
<221> SITE
<222> (22)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (39)
<223> Xaa equals any of the naturally occurring I-amino acids
<220>
<221> SITE
<222> (42)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 726
Val His Ala Xaa Thr Pro Phe Ala Gly Xaa Cys Phe Asp Pro Val Ser
                                      1.0
                                                         1.5
Leu Tyr Trp Cys Tyr Xaa Asn Pro Gly Thr His Cys Tyr Pro Thr Leu
Arg Gly Xaa Glu Gln Arg Xaa Pro Ser Xaa Arg Ser His Ile Val Leu
Arg Ser
     50
<210> 727
<211> 957
<212> PRT
<213> Homo sapiens
<400> 727
Met Ala Leu Leu His Trp Gly Ala Leu Trp Arg Gln Leu Ala Ser Pro
Cys Gly Ala Trp Ala Leu Arg Asp Thr Pro Ile Pro Arg Trp Lys Leu
Ser Ser Ala Glu Thr Tyr Ser Arg Met Arg Leu Lys Leu Val Pro Asn
                              40
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His His Phe Asp Pro His Leu Glu Ala Ser Ala bu Arg Asp Asn Leu Gly Glu Val Pro Leu Thr Pro Thr Glu Glu Ala Ser Leu Pro Leu Ala Val Thr Lys Glu Ala Lys Val Ser Thr Pro Pro Glu Leu &u Gln Glu Asp Gln Leu Gly Glu Asp Glu Leu Ala Glu Leu Glu Thr Pro Met Glu Ala Ala Glu Leu Asp Glu Gln Arg Glu Lys Leu Val Leu Ser Aa Glu 120 Cys Gln Leu Val Thr Val Val Ala Val Val Pro Gly Leu Leu Glu Val Thr Thr Gln Asn Val Tyr Phe Tyr Asp Gly Ser Thr Glu Arg Val Glu 150 155 Thr Glu Glu Gly Ile Gly Tyr Asp Phe Arg Arg Pro Leu Ala Gln Leu 165 Arg Glu Val His Leu Arg Arg Phe Asn Leu Arg Arg Ser Ala Leu Glu 185 Leu Phe Phe Ile Asp Gln Ala Asn Tyr Phe Leu Asn Phe Pro Cys Lys Val Gly Thr Thr Pro Val Ser Ser Pro Ser Gln Thr Pro Arg Pro Gln 215 Pro Gly Pro Ile Pro Pro His Thr Gln Val Arg Asn Gln Val Tyr Ser Trp Leu Leu Arg Leu Arg Pro Pro Ser Gln Gly Tyr Leu Ser Ser Arg Ser Pro Gln Glu Met Leu Arg Ala Ser Gly Leu Thr Gln Lys Trp Val 265 Gln Arg Glu Ile Ser Asn Phe Glu Tyr Leu Met Gln Leu Asn Thr Ile 280 275 Ala Gly Arg Thr Tyr Asn Asp Leu Ser Gln Tyr Pro Val Phe Pro Trp 295 Val Leu Gln Asp Tyr Val Ser Pro Thr Leu Asp Leu Ser Asn Pro Ala Val Phe Arg Asp Leu Ser Lys Pro Ile Gly Val Val Asn Pro Lys His 330 Ala Gln Leu Val Arg Glu Lys Tyr Glu Ser Phe Glu Asp Pro Ala Gly

Thr Ile Asp Lys Phe His Tyr Gly Thr His Tyr Ser Asn Ala Ala Gly 360 Val Met His Tyr Leu Ile Arg Val Glu Pro Phe Thr Ser Leu His Val 370 Gln Leu Gln Ser Gly Arg Phe Asp Cys Ser Asp Arg Gln Phe His Ser Val Ala Ala Ala Trp Gln Ala Arg Leu Glu Ser Pro Ala Asp Val Lys 410 Glu Leu Ile Pro Glu Phe Phe Tyr Phe Pro Asp Phe Leu Glu Asn Gln 425 Asn Gly Phe Asp Leu Gly Cys Leu Gln Leu Thr Asn Glu Lys Val Gly Asp Val Val Leu Pro Pro Trp Ala Ser Ser Pro Glu Asp Phe Ile Gln 455 Gln His Arg Gln Ala Leu Glu Ser Glu Tyr Val Ser Ala His Leu His 475 470 Glu Trp Ile Asp Leu Ile The Gly Tyr Lys Gln Arg Gly Pro Ala Ala 485 490 Glu Glu Ala Leu Asn Val Phe Tyr Tyr Cys Thr Tyr Glu Gly Ala Val Asp Leu Asp His Val Thr Asp Qu Arg Glu Arg Lys Ala Leu Glu Gly Ile Ile Ser Asn Phe Gly Gln Thr Pro Cys Gln Leu Leu Lys Glu Pro 535 His Pro Thr Arg Leu Ser Ala Glu Glu Ala Ala His Ang Leu Ala Arg Leu Asp Thr Asn Ser Pro Ser Ile Phe Gln His Leu Asp Glu Leu Lys 570 Ala Phe Phe Ala Glu Val Val Ser Asp Gly Val Po Leu Val Leu Ala 580 585 Leu Val Pro His Arg Gln Pro His Ser Phe Ile Thr Gln Gly Ser Pro 600 Asp Leu Leu Val Thr Val Ser Ala Ser Gly Leu Leu Gly Thr Hs Ser 615 Trp Leu Pro Tyr Asp Arg Asn Ile Ser Asn Tyr Phe Ser Phe Ser Lys 635 Asp Pro Thr Met Gly Ser His Lys Thr Gln Arg Leu Leu Ser Gly Pro

650

Trp Val Pro Gly Ser Gly Val Ser Gly Gln Ala Leu Ala Val Ala Pro 660 Asp Gly Lys Leu Leu Phe Ser Gly Gly His Trp Asp Gly Ser Leu Arg 675 Val Thr Ala Leu Pro Arg Gly Lys Leu Leu Ser Gln Leu Ser Cys His 695 Leu Asp Val Val Thr Cys Leu Ala Leu Asp Thr Cys Gly Ile Tyr Leu Ile Ser Gly Ser Arg Asp Thr Thr Cys Met Val Trp Arg Leu Leu His 730 Gln Gly Gly Leu Ser Val Gly Leu Ala Pro Lys Pro Val Gln Val Leu Tyr Gly His Gly Ala Ala Val Ser Cys Val Ala Ile Ser Thr Glu Leu Asp Met Ala Val Ser Gly Ser Glu Asp Gly Thr Val Ile Ile His Thr Val Arg Arg Gly Gln Phe Val Ala Ala Leu Arg Pro Leu Gly Ala Thr 795 Phe Pro Gly Pro Ile Phe His Leu Ala Leu Gly Ser Glu Gly Gln Ile 810 Val Val Gln Ser Ser Ala Trp Glu Arg Pro Gly Ala Gln Val Thr Tyr 825 Ser Leu His Leu Tyr Ser Val Asn Gly Lys Leu Arg Ala Ser Leu Pro 840 Leu Ala Glu Gln Pro Thr Ala Leu Thr Val Thr Glu Asp Phe Val Leu Leu Gly Thr Ala Gln Cys Ala Leu His Ile Leu Gln Leu Asn Thr Leu 875 870 Leu Pro Ala Ala Pro Pro Leu Pro Met Lys Val Ala Ile Arg Ser Val Ala Val Thr Lys Glu Arg Ser His Val Leu Val Gly Leu Glu Asp Gly 905 Lys Leu Ile Val Val Val Ala Gly Gln Pro Ser Glu Val Arg Ser Ser 920 Gln Phe Ala Arg Lys Leu Trp Arg Ser Ser Arg Arg Ile Ser Gln Val Ser Ser Gly Glu Thr Glu Tyr Asn Pro Thr Glu Ala Arg 950

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<210> 728
<211> 57
<212> PRT
<213> Homo sapiens
<400> 728
Met Pro Pro His Arg Gln Thr Asp Gly Gln Met Gly Leu Pro Ala Pro
Ala Leu Trp Val Trp Gly Leu Leu Leu Ser Ser Ser Phe Gln Thr Leu
Leu Pro Ala Phe Pro Lys Pro Pro Ala Leu Asn Leu Gly Cys Ser Thr
                             40
Arg Pro Ile Pro Ser Phe Leu Lys Ile
     5.0
<210> 729
<211> 93
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (24)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (65)
<223> Xaa equals any of the naturally occurring Hamino acids
<400> 729
Gln Val Ser Leu Pro Thr Arg Leu Leu Gln Met Pro Gly Met Gly Leu
Asp Ser Arg Phe Gln Ala Trp Xaa Pro Ser Pro ∜r Leu Gly Pro Gln
Pro Arg Ala Pro Arg Pro Gly Leu Gln Pro Gly Pro Ser Leu Arg Gly
Ala Glu Phe Arg Glu Ser Cys Pro Arg Ser Gln Lys Arg Gly Ag Glu
                          55
Xaa Gly Arg Pro Cys Pro Gly Cys Arg Pro Gly Gly Trp Gly Leu Pro
Ala Arg Leu Gly Gln Pro Gln Leu Gln Thr Gly Pro Gly
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<210> 730
<211> 172
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (170)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 730
Met Arg Gly Ser Val Glu Cys Thr Trp Gly Trp Gly His Cys 🕰 Pro
Ser Pro Leu Leu Trp Thr Leu Leu Phe Ala Ala Pro Phe Gly
                                2.5
Leu Leu Gly Glu Lys Thr Arg Gln Leu Leu Glu Phe Asp Ser Thr An
Val Ser Asp Thr Ala Ala Lys Pro Leu Gly Arg Pro Tyr Pro Pro Tyr
Ser Leu Ala Asp Phe Ser Trp Asn Asn Ile Thr Asp Ser Leu Asp Pro
Ala Thr Leu Ser Ala Thr Phe Gln Gly His Pro Met Asn Asp Pro Thr
Arg Thr Phe Ala Asn Gly Ser Leu Ala Phe Arg Val Gln Ala Phe Ser
           100
                                105
                                                    110
Arg Ser Ser Arg Pro Ala Gln Pro Pro Arg Leu Leu His Thr Ala Asp
                            120
Thr Cys Gln Leu Glu Val Ala Leu Ile Gly Ala Ser Pro Arg Gly Asn
Arg Ser Leu Phe Gly Leu Glu Val Ala Thr Leu Gly Gln Gly Pro Asp
                   150
Cys Pro Ser Met Gln Glu Gln His Ser Xaa Glu Arg
<210> 731
<211> 131
<212> PRT
<213> Homo sapiens
<400> 731
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10

Met Arg Gly Ser Val Glu Cys Thr Trp Gly Trp Gly His Cys Ala Pro

Ser Pro Leu Leu Trp Thr Leu Leu Phe Ala Ala Pro Phe Gy

20 25 30

Leu Leu Gly Glu Lys Thr Arg Gln Leu Leu Glu Phe Asp Ser Thr Asn 35 40 45

Val Ser Asp Thr Ala Ala Lys Pro Leu Gly Arg Pro Tyr Pro Pro Tyr 50 60

Ser Leu Ala Asp Phe Ser Trp Asn Asn Ile Thr Asp Ser Leu Asp Pro 65 70 75 80

Ala Thr Leu Ser Ala Thr Phe Gln Gly His Pro Met Asn Asp Pro Thr  $85 \hspace{1cm} 90 \hspace{1cm} 95$ 

Arg Thr Phe Ala Asn Gly Ser Leu Ala Phe Arg Ser Arg Pro Phe Pro  $100 \\ 100 \\ 110$ 

Gly Pro Ala Asp Gln Pro Asn Pro Leu Ala Ser Cys Thr Gln Gln Thr 115 120 125

Pro Val Ser 130

<210> 732

<211> 121

<212> PRT

<213> Homo sapiens

<400> 732

Met Cys Phe Leu Met Ile Phe Thr Phe Leu Val Cys Trp Met Pro Tyr  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Ile Val Ile Cys Phe Leu Val Val Asn Gly His Gly His Leu Val Thr  $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$ 

Pro Thr Ile Ser Ile Val Ser Tyr Leu Phe Ala Lys Ser Asn Thr Val 35 40 45

Tyr Asn Pro Val Ile Tyr Val Phe Met Ile Arg Lys Phe Arg Arg Ser 50 55 60

Leu Leu Gln Leu Leu Cys Leu Arg Leu Leu Arg Cys Gln Arg Pro Ala 65 70 75 80

Lys Asp Leu Pro Ala Ala Gly Ser Glu Met Gln Ile Arg Pro Ile Val 85 90 95

Met Ser Gln Lys Asp Gly Asp Arg Pro Lys Lys Ser Asp Phe Gln Leu 100 105 110

Phe Phe His His Phe Tyr His His Gln 115 120

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<210> 733
<211> 49
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 733
Met Gly Ala His Ser Phe Gly Phe Gln Leu Re Met Ser Val Ser Val
                                     10
Leu Trp Gly Arg Leu Cys Leu Tyr Gly Arg Phe Ser Val Ile Thr Phe
Ala Ser Pro Pro Thr Thr Phe Met Xaa Ile Gln 🗣s Cys Ser His Cys
Ser
<210> 734
<211> 79
<212> PRT
<213> Homo sapiens
<400> 734
Ser Gly Trp Gln Val Pro Ser Ser Val Lys His Leu Pro Tyr Asp Asn
                                     10
Leu Arg Ser His Cys Val Ala Asp Glu Gly Glu Thr Glu Val Glu Gly
             20
Thr Arg Ala Thr Trp Val Glu His Ser Gly Arg Pro Gly Val Gly Ser
Gly Arg Pro Pro Gly Thr Ser Leu Thr Thr Leu Pro Leu Leu Leu Thr
His Leu Ser Leu Thr Cys Pro Leu Gly Gly Asp Phe Ser Lys Arg
<210> 735
<211> 484
<212> PRT
<213> Homo sapiens
<400> 735
Met Pro Arg His Leu Ser Gly Leu Leu Leu Leu Trp Pro Leu Leu
```

10

Gly Leu Arg Arg Leu Gly Thr Arg Gly Pro Gly Gly Ser Pro Gly Arg Arg Pro Gly Ser Ala Val Pro Thr Arg Ala Pro Tyr Ser Gly Ala Gly Gln Pro Gly Gly Ala Arg Gly Ala Gly Val Cys Arg Ser Arg Pro Leu Asp Leu Val Phe Ile Ile Asp Ser Ser Arg Ser Val Arg Pro Leu Glu Phe Thr Lys Val Lys Thr Phe Val Ser Gln Ile Ile Asp Thr Leu Asp 105 Ile Gly Ala Ala Asp Thr Arg Val Ala Val Val Asn Tyr Ala Ser Thr 120 Val Lys Ile Glu Phe His Leu Gln Thr His Ser Asp Lys Gln Ser Leu 135 Lys Gln Ala Val Ala Arg Ile Thr Pro Leu Ser Thr Gly Thr Met Ser 155 Gly Leu Ala Ile Gln Thr Ala Met Asp Glu Ala Phe Thr Val Glu Ala 170 Gly Ala Arg Gly Pro Thr Ser Asn Ile Pro Lys Val Ala Ile Ile Val 185 Thr Asp Gly Arg Pro Gln Asp Gln Val Asn Glu Val Ala Ala Arg Ala 200 Arg Ala Ser Gly Ile Glu Leu Tyr Ala Val Gly Val Asp Arg Ala Asp Met Glu Ser Leu Lys Met Met Ala Ser Glu Pro Leu Asp Glu His Val 235

Leu Leu Leu Pro Pro Thr Pro Ala Ala Pro Gly Pro Leu Ala Arg Pro

Cys Gln His Val Cys Val Ser Asp Gly Glu Gly Lys His His Cys Glu 275 280 285

Phe Tyr Val Glu Thr Tyr Gly Val Ile Glu Lys Leu Ser Ser Arg Phe

Gln Glu Thr Phe Cys Ala Leu Asp Pro Cys Val Leu Gly Thr His Arg 260 265 270

250

- Cys Ser Gln Gly Tyr Ser Leu Asn Ala Asp Gln Lys Thr Cys Ser Ala 290 295 300
- Ile Asp Lys Cys Ala Leu Asn Thr His Gly Cys Glu His Ile Cys Val 305 310 315 320

Asn Asp Arg Thr Gly Ser Tyr His Cys Glu Cys Tyr Glu Gly Tyr Thr Leu Asn Gln Asp Arg Lys Thr Cys Ser Ala Gln Asp Gln Cys Ala Phe Gly Thr His Gly Cys Gln His IleCys Val Asn Asp Arg Asp Gly Ser 360 His His Cys Glu Cys Tyr Glu Gly Tyr Thr Leu Asn Ala Asp Asn Lys Thr Cys Ser Val Arg Ser Glu Cys Ala Gly Gly Ser HisGly Cys Gln 395 390 His Leu Cys Val Asp Asp Gly Pro Ala Ala Tyr His Cys Asp Cys Phe 405 Pro Gly Tyr Thr Leu Thr Glu Asp Arg Arg Thr CysAla Ala Ile Glu Glu Ala Arg Arg Leu Val Ser Thr Glu Asp Ala Cys Gly Cys Glu Ala Thr Leu Ala Phe Gln Glu Arg Ala Ser Ser Tyr Leu Gln Arg LeuAsn 455 Ala Lys Leu Asp Asp Ile Leu Gly Lys Leu Gln Ala Asp Ala Tyr Gly 475 470 Gln Ile His Arg

<210> 736 <211> 266 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (45) <223> Xaa equals any of the naturally occurring Lamino acids <220> <221> SITE <222> (47) <223> Xaa equals any of the naturally occurring Lamino acids <220> <221> SITE <222> (51) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE

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<222> (134)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (183)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
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<222> (222)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
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<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (255)
<223> Xaa equals any of the naturally occurrig L-amino acids
<400> 736
Met Pro Arg His Leu Ser Gly Leu Leu Leu Leu Trp Pro Leu Leu
Leu Leu Pro Pro Thr Pro Ala Ala Pro Gly Pro Leu Ala Arg Pro
Gly Leu Arg Arg Leu Gly Thr Arg Gly Pro Gly Gly Xaa Pro Xaa Arg
Arg Pro Xaa Ser Ala Val Pro Thr Arg Ala Pro Tyr Ser Gly Ala Gly
Gln Pro Gly Gly Ala Arg Gly Ala Gly Val Cys Arg Ser Arg Pro Leu
                                         75
Asp Leu Val Phe Ile Ile Asp Ser Ser Arg Ser Val Arg Pro Leu Glu
Phe Thr Lys Val Lys Thr Phe Val Ser Gln Ile Ile Asp Thr Leu Asp
            100
                                105
Ile Gly Ala Ala Asp Thr Arg Val Ala Val Val Asn Tyr Ala Ser Thr
Val Lys Ile Glu Phe Xaa Leu Gln Thr His Ser Asp Lys Gln Ser Leu
Lys Gln Ala Val Ala Arg Ile Thr Pro Leu Ser Thr Gly Thr Met Ser
                                        155
Gly Leu Ala Ile Gln Thr Ala Met Asp Glu Ala Phe Thr Val Glu Ala
                                    170
                165
```

Gly Ala Arg Gly Pro Thr Xaa Asn Ile Pro Lys Val Ala Ile Ile Val 180 185 190

Thr Asp Gly Arg Pro Gln Asp Gln Val Asn Glu Val Ala Ala Arg Ala 195 200 205

Arg Ala Ser Gly Ile Glu Leu Tyr Ala Val Gly Val Asp Xaa Ala Xaa 210 225 220

Met Glu Ser Leu Gln Asp Glu Trp Pro Ala Lys Pro Leu Asp Glu His 225 230 235 240

Val Phe Tyr Val Glu Thr Tyr Gly Val Ile Glu Lys Pro Ser Xaa Arg 245 250 255

Phe Gln Glu Thr Leu Leu Arg Ser Trp Asn 260 265

<210> 737

<211> 5

<212> PRT

<213> Homo sapiens

<400> 737

Val Leu Leu Ile Leu 1 5

<210> 738

<211> 84

<212> PRT

<213> Homo sapiens

<400> 738

Lys Met His Phe Asn Lys Asn Lys Ser Ile Leu Lys Ser Phe Ser Phe 1 5 10 15

Val Arg Gly Asn Met Asn Glu Ile His Ser Tyr Leu Lys Thr Glu Tyr 20 25 30

Phe Thr Ala Lys Thr Leu AsnIle Ser Arg Ala Tyr His Ile Leu Asn 35 40 45

Thr Leu Trp Ser Cys Ser Tyr Phe Asn Ile Pro Gly Ser Gly Gln 50 55 60

Leu Ala Cys Leu Trp Leu Arg Ile Cys Phe His AlaCys Phe Leu Ser 65 70 75 80

Phe Phe Tyr Leu

```
<210> 739
<211> 77
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (8)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (10)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (16)
<223> Xaa equals any of the næurally occurring L-amino acids
<400> 739
Leu Gly Gly Tyr Ala Leu Ser Xaa Xaa Xaa Asn Arg Val Thr Asp Xaa
                                                          15
Val Met Ile Tyr Phe Phe Ile Ile Ile Val Glu Tyr Phe Tyr Gly Lys
                                 2.5
Ile Phe Val Val Leu Ile Ile Pro Ile Lys Ile Met Pro Asn Thr Lys
         35
Tyr Glu Phe Tyr Asp Val His Phe Val Leu Gly Ile Lys Arg Lys
His Thr Ser Trp Lys Ser Val Ser Cys Phe Leu Leu
                    7.0
<210> 740
<211> 84
<212> PRT
<213> Homo sapiens
<400> 740
Thr Tyr Ser Phe Cys Val Cys Glu Arg Ala Phe Val Phe Gly Ser Val
Pro Arg Ala Glu Val Glu Gln Gly Cys Thr Tyr His Gly Lys Gly Gly
Arg Lys Glu Asn Trp Ile Ala Cys Asp Leu Trp Trp Asn Leu Phe Leu
```

40

Leu Pro Arg Pro Phe Arg Pro Cys Leu Ile Ser Val Gly His Phe Arg
50 60

Leu Trp Gln Gly Arg Ala Gly Leu Gln Ser Glu Val Pro Ala Ser Ser 65 70 75 80

Leu Glu His Asn

```
<210> 741
<211> 161
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (123)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (129)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (145)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (146)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (157)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 741
Met Thr Thr Trp Ser Cys Leu Val Ala Met Ile Val Ser Gly Val Ile
                                      10
Thr Ala Val Trp Ala Val Arg Ala Ala Pro Ile Trp Arg Ser Gln Val
             20
Lys Gln Lys Met Arg Ile Gly Lys Gln Gly Asn Cys Arg Pro Pro Arg
Cys Ile Cys Ser Ala Leu Gly Leu Leu Ala Pro Trp Met Ala Val Val
```

Leu Ser Gln Leu Ser Val Arg Cys Val Val Ser Trp Val Gln Gly Lys

```
Pro Ser Ser Pro Arg Pro Arg Gly Ser AlaAla Ser Pro Ala Pro Gly
                 85
Ala Thr Pro Pro Thr Pro Arg Lys Pro Val Ser Trp Leu Gly Tyr Arg
Glu Asn His Arg Pro Lys Lys Pro Lys Ser XaaThr Arg Cys Leu Val
Xaa Gln Asn Trp Ser Leu Pro Pro Ile Ser Lys Asp Arg Thr Ala Gly
                        135
Xaa Xaa Asp Thr Asn Arg Thr Arg Arg Ser Gly Leu Xaa Leu Arg Leu
                    150
                                        155
Gly
<210> 742
<211> 325
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (10)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (136)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (186)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
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Phe Thr Lys Arg Gln Tyr Pro Glu Thr Lys Ile Ile Lys Thr Asp Gly

Val Pro Pro Ala Val Cys Pro Ala Gly Xaa Phe Cys Gln Asn Gln Cys

<223> Xaa equals any of the naturally occurring Lamino acids

<222> (234)

<400> 742

Lys Gly Trp Gly Leu Val Ala Lys Arg Asp Ile Arg Lys Gly Glu Phe 35 40 45

Val Asn Glu Tyr Val Gly Glu Leu Ile Asp Glu Glu Glu Cys Met Ala

10

Arg Ile Lys His Ala His Glu Asn Asp Ile Thr His Phe Tyr Met Leu Thr Ile Asp Lys Asp Arg Ile Ile Asp Ala Gly Pro Lys Gly Asn Tyr Ser Arg Phe Met Asn His Ser Cys Gln Pro Asn Cys Glu Thr Leu Lys 105 Trp Thr Val Asn Gly Asp Thr Arg Val Gly Leu Phe Ala Val Cys Asp 120 115 Ile Pro Ala Gly Thr Glu Leu Xaa Phe Asn Tyr Asn Leu Asp Cys Leu 135 Gly Asn Glu Lys Thr Val Cys Arg Cys Gly Ala Ser Asn Cys Ser Gly 155 Phe Leu Gly Asp Arg Pro Lys Thr Ser Thr Thr Leu Ser Ser Glu Glu Lys Gly Lys Lys Thr Lys Lys Thr Xaa Arg Arg Ala Lys Gly 185 Glu Gly Lys Arg Gln Ser Glu Asp Glu Cys Phe Arg Cys Gly Asp Gly Gly Gln Leu Val Leu Cys Asp Arg Lys Phe Cys Thr Lys Ala Tyr His 215 Leu Ser Cys Leu Gly Leu Gly Lys Arg XaaPhe Gly Lys Trp Glu Cys Pro Trp His His Cys Asp Val Cys Gly Lys Pro Ser Thr Ser Phe Cys His Leu Cys Pro Asn Ser Phe Cys LysGlu His Gln Asp Gly Thr Ala

Phe Ser Cys Thr Pro Asp Gly Arg Ser Tyr Cys Cys Glu His Asp Leu

Gly Ala Ala Ser Val Arg Ser Thr Lys Thr Glu LysPro Pro Pro Glu

Pro Gly Lys Pro Lys Gly Lys Arg Arg Arg Arg Gly Trp Arg Arg

295

310

55

50

Val Thr Glu Gly Lys

<210> 743

315

<212> PRT <213> Homo sapiens

<400> 743

Met Val Ala Met Val Phe Leu Lys Ile Ser Val Leu Pro Leu Met Cys 1 5 10 15

Arg Gly Gln Thr Lys His Lys Val Leu Arg Asp His Ala Tyr Pro Arg 20 25 30

Val Ser Gln Lys Arg Gly His Ile 35 40

<210> 744

<211> 173

<212> PRT

<213> Homo sapiens

<400> 744

Met Val Phe Leu Lys Phe Phe Cys Met Ser Phe Phe Cys His Leu Cys 1 5 10 15

Gln Gly Tyr Phe Asp Gly Pro Leu Tyr Pro Glu Met Ser Asn Gly Thr

Leu His His Tyr Phe Val Pro Asp Gly Asp Tyr Glu Glu Asn Asp Asp 35 40 45

Pro Glu Lys Cys Gln Leu Leu Phe Arg Val Ser Asp His Arg Arg Cys
50 60

Ser Gln Gly Glu Gly Ser Gln Val Gly Ser Leu Leu Ser Leu Thr Leu 65 70 75 80

Arg Glu Glu Phe Thr Val Leu Gly His Gln Val Glu Gly Cys Trp Ala \$85\$ 90 95

Arg Ala Gly Gly His Gln Gln Lys His Leu Leu Arg Pro Arg Arg Gly
100 105 110

Arg Glu Leu Trp Gln Val Pro Ala Ala Gly Val Pro Pro Asp Arg Gly
115 120 125

Met Pro Thr Pro Thr Arg Thr Asn Pro Ser Leu Ser Trp Arg Ala Ser 130 140

Ser Ser Arg Ala Arg Asn Arg Thr Ala Gly Arg Arg Ala Gly Ser Thr
145 150 155 160

Arg Thr Phe Trp Glu Cys Trp Ser Thr Pro Gly Pro Cys 165

<210> 745

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<211> 48
<212> PRT
<213> Homo sapiens
<400> 745
Met Met Leu Tyr Gln Asn Met Leu Leu Tyr Phe Arg Ile Ile Gly Val
                                     10
 1
Leu Ala Leu Asn Phe Ser Ile Ser Pro Ile Phe Phe His Gly Ser Leu
                                  25
Gly Lys Leu Tyr Val Tyr Ser Ala Ala Lys Tyr Ser Leu Glu Leu Lys
                             40
<210> 746
<211> 10
<212> PRT
<213> Homo sapiens
<400> 746
Ile Tyr Gln His Phe Ser Leu Trp Leu Gly
<210> 747
<211> 4
<212> PRT
<213> Homo sapiens
<400> 747
Met Phe Lys Met
 1
<210> 748
<211> 80
<212> PRT
<213> Homo sapiens
<400> 748
Met Phe Asp Arg Cys Arg Val Thr Ser Cys Ser Cys Thr Cys Gly Ala
                                      10
Gly Ala Lys Trp Cys Thr His Val Val Ala Leu Cys Leu Phe Arg Ile
             20
His Asn Ala Ser Ala Val Cys Leu Arg Ala Pro Val Ser Glu Ser Leu
```

Ser Arg Leu Gln Arg Asp Gln Leu Gln Lys Phe Ala Gln Tyr Leu Ile

50 55 60

Ser Glu Leu Pro Gln Gln Val Gly GluVal Gly Thr Pro Ser Cys Asn 65 70 75 80

<210> 749

<211> 145

<212> PRT

<213> Homo sapiens

<400> 749

Asp Pro Ser Gly Ser Phe Met Gly Arg Ser Val Met Met Arg Ile Leu 1 5 10 15

Gly Ser Pro Val Phe Pro Met His Asp Thr Ser Val Cys Leu Thr

Tyr Pro Asn Phe Tyr Thr Val Val Ser Pro Thr Gly Ser Arg Pro Pro 35 40 45

Ser Arg Asn Trp Asn Ser Glu Thr Pro Gly Asp Glu Glu Leu Gly Phe

Glu Ala Ala Val Ala Ala Leu Gly Met Lys Thr Thr Val Ser Glu Ala 65 70 80

Glu His Pro Leu Cys Glu Gly Thr Arg Arg Glu Lys Gly Asp Leu 85 90 95

Ala Leu Ala Leu Met Ile Thr Tyr Lys Asp Asp Gln Ala Lys Leu Lys 100 105 110

Lys Lys Ile Ser Arg Ala Trp Trp Arg Ala Pro Val Val Pro Ala Thr \$115\$

Arg Glu Ala Glu Val Gly Glu Leu Leu Glu Pro Arg Ser Leu Arg Leu 130 \$135\$ 140

Gln

145

<210> 750

<211> 201

<212> PRT

<213> Homo sapiens

<400> 750

Met Lys Leu Ieu Ile Leu Phe Leu Ser His Leu Leu Ser Leu Ala Phe 1 5 10 15

- Gly Ile Leu Cys Leu Ser Val Thr Val Ile LeuSer Leu Leu Ser 20 25 30
- Phe Ser Lys Arg Gly Phe Ser Val Arg Ser Phe Gly Thr Gly Thr His 35 40 45
- Val Lys Leu Pro Gly Pro Ala Pro Asp Lys Pro Asn Val TyrAsp Phe
  50 60
- Lys Thr Thr Tyr Asp Gln Met Tyr Asn Asp Leu Leu Arg Lys Asp Lys 65 70 75 80
- Glu Leu Tyr Thr Gln Asn Gly Ile Leu His Met Leu Asp Arg Asn Lys
  85 90 95
- Arg Ile Lys Pro Arg Pro Glu Arg Phe Gln Asn Cys Lys Asp Leu Phe 100 105 110
- Asp Leu Ile Leu Thr Cys Glu Glu Arg Val Tyr Asp Gln Val Val Glu 115 120 125
- Asp Leu Asn Ser Arg Glu Gln Glu Thr Cys Gln Pro Val His Val Val 130 135 140
- Asn Val Asp Ile Gln Asp Asn His Glu Glu Ala Thr Leu Gly Ala Phe 145 150 155 160
- Leu Ile Cys Glu Leu Cys Gln Cys Ile Gln His Thr Glu Asp Met Glu 165 170 175
- Asn Glu Ile Asp Glu Leu Leu Gln Glu Phe Glu Glu Lys Ser Gly Arg 180 185 190
- Thr Phe Leu His Thr Val Cys Phe Tyr 195 200
- <210> 751
- <211> 392
- <212> PRT
- <213> Homo sapiens
- <220>
- <221> SITE
- <222> (251)
- <223> Xaa equals any of the naturally occurring Lamino acids
- <400> 751
- Met Ala Pro Trp Pro Pro Lys Gly Leu Val Pro Ala Val Leu Trp Gly
  1 5 10 15
- Leu Ser Leu Phe Leu Asn Leu Pro Gly Pro Ile Trp Leu Gln Pro Ser 20 25 30
- Pro Pro Pro Gln Ser Ser Pro Pro Pro Gln Pro His Pro Cys His Thr 35 40 45

Cys Arg Gly Leu Val Asp Ser Phe Asn Lys Gly Leu Glu Arg Thr Ile Arg Asp Asn Phe Gly Gly Gly Asn Thr Ala Trp Glu Glu Glu Asn Leu Ser Lys Tyr Lys Asp Ser Glu Thr Arg Leu Val Glu Val Leu Glu Gly Val Cys Ser Lys Ser Asp Phe Glu Cys His Arg Leu Leu Glu Leu Ser Glu Glu Leu Val Glu Ser Trp Trp Phe His Lys Gln Gln Glu Ala Pro 120 Asp Leu Phe Gln Trp Leu Cys Ser Asp Ser Leu Lys Leu Cys Cys Pro 135 Ala Gly Thr Phe Gly Pro Ser Cys Leu Pro Cys Pro Gly Gly Thr Glu Arg Pro Cys Gly Gly Tyr Gly Gln Cys Glu Gly Glu Gly Thr Arg Gly Gly Ser Gly His Cys Asp Cys Gln Ala Gly Tyr Gly Glu Ala Cys Gly Gln Cys Gly Leu Gly Tyr Phe Glu Ala Glu Arg Asn Ala Ser His 200 205 Leu Val Cys Ser Ala Cys Phe Gly Pro Cys Ala Arg Cys Ser Gly Pro 215 Glu Glu Ser Asn Cys Leu Gln Cys Lys LysGly Trp Ala Leu His His Leu Lys Cys Val Asp Cys Ala Lys Ala Cys Xaa Gly Cys Met Gly Ala 250 Gly Pro Gly Arg Cys Lys Cys SerPro Gly Tyr Gln Gln Val Gly Ser Lys Cys Leu Asp Val Asp Glu Cys Glu Thr Glu Val Cys Pro Gly 280 Glu Asn Lys Gln Cys Glu Asn Thr Glu Gly Gly TyrArg Cys Ile Cys 295 Ala Glu Gly Tyr Lys Gln Met Glu Gly Ile Cys Val Lys Glu Gln Ile Pro Glu Ser Ala Gly Phe Phe Ser Glu Met Thr Glu Asp GluLeu Val Val Leu Gln Gln Met Phe Phe Gly Ile Ile Cys Ala Leu Ala Thr 345

Leu Ala Ala Lys Gly Asp Leu Val Phe Thr Ala Ile Phe Ile GlyAla 355 360 365

Val Ala Ala Met Thr Gly Tyr Trp Leu Ser Glu Arg Ser Asp Arg Val 370 375 380

Leu Glu Gly Phe Ile Lys Gly Arg

<210> 752

<211> 63

<212> PRT

<213> Homo sapiens

<400> 752

Met Thr Glu Asp Glu Leu Val Val Leu Gln Gln Met Phe Gly Ile 1 5 10 15

Ile Ile Cys Ala Leu Ala Thr Leu Ala Ala Lys Gly Asp Leu Val Phe 20 25 30

Thr Ala Ile Phe Ile Gly Ala Val Ala Ala Met Thr Gly Tyr Trp Leu 35 40 45

Ser Glu Arg Ser Asp Arg Val Leu Glu Gly Phe Ile Lys Gly Arg
50 55 60

<210> 753

<211> 102

<212> PRT

<213> Homo sapiens

<400> 753

Met Thr Val Arg Arg Leu Ser Leu Leu Cys Arg Asp Leu Trp Ala Leu 1 5 10 15

Trp Leu Leu Lys Ala Gly Ala Val<br/>Arg Gly Ala Arg Ala Gly Pro\$20\$ \$25\$ 30

Arg Leu Pro Gly Arg Cys Cys Gly Ala Thr Cys Gly Asp Ala Gly Arg 35 40 45

Gly Trp Thr Phe Trp Ala Gln Pro Cys Pro Gln LysLeu Leu Gly Gln 50 55 60

Lys Pro Gly Ala Gly Gly Cys Arg Gly Trp Val Leu Gly Trp Val Pro 65 70 75 80

Pro Arg Pro Glu Glu Pro Cys Ser Leu Ala Gly Lys Val CysThr Gly 85 90 95

Leu Ala Arg Trp Met Val

100

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<210> 754
<211> 53
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 754
Met Cys Lys Ala Val Cys Lys His Arg Leu Arg Leu Phe Ala Val Ser
Ser Phe Ser Leu Gly Leu Gly Trp Val Cys Val Leu Val Leu Met Leu
Trp Pro Val Arg Leu Ser Leu Ala Xaa Arg Pro Val Gln Leu Gln Gln
Arg Arg Ser His Cys
     50
<210> 755
<211> 472
<212> PRT
<213> Homo sapiens
<400> 755
Met Lys Phe Leu Ile Phe Ala Phe Phe Gly Gly Val His Leu Leu Ser
Leu Cys Ser Gly Lys Ala Ile Cys Lys Asn Gly Ile Ser Lys Arg Thr
Phe Glu Glu Ile Lys Glu Glu Ile Ala Ser Cys Gly Asp Val Ala Lys
Ala Ile Ile Asn Leu Ala Val Tyr Gly Lys Ala Gln Asn Arg Ser Tyr
Glu Arg Leu Ala Leu Leu Val Asp Thr Val Gly Pro Arg Leu Ser Gly
Ser Lys Asn Leu Glu Lys Ala Ile Gln Ile Met Tyr Gln Asn Leu Gln
Gln Asp Gly Leu Glu Lys Val His Leu Glu Pro Val Arg Ile Pro His
```

Trp Glu Arg Gly Glu Glu Ser Ala Val Met Leu Glu Pro Arg Ile His

		115					120					125			
Lys	Ile 130	Ala	Ile	Leu	Gly	Leu 135	Gly	Ser	Ser	ΙÈ	Gly 7	Γhr	Pro E	Pro (	Glu
Gly 145	Ile	Thr	Ala	Glu	Val 150	Leu	Val	Val	Thr	Ser 155	Phe	Asp	Glu	Leu	Gln 160
Arg	Arg	Ala	Ser	Glu 165	Ala	Arg	Gly	Lys	Ile 170	Val	Val	Т¥	Asn (	31n E 175	Pro
Tyr	Ile	Asn	Tyr 180	Ser	Arg	Thr	Val	Gln 185	Tyr	Arg	Thr	Gln	Gly 190	Ala	Val
Glu	Ala	Ala 195	Lys	Val	Gly	Ala	Leu 200	Ala	Ser	Leu	Ile	Arg 205	Se V	al P	Ala
Ser	Phe 210	Ser	Ile	Tyr	Ser	Pro 215	His	Thr	Gly	Ile	Gln 220	Glu	Tyr	Gln	Asp
Gly 225	Val	Pro	Lys	Ile	Pro 230	Thr	Ala	Cys	Ile	Thr 235	Val	Glu	Asp	Ala	Glu 240
Met	Met	Ser	Arg	Met 245	Ala	Ser	His	Gly	Ile 250	Lys	Ile	Val	Ile	Gln 255	Leu
Lys	Met	Gly	Ala 260	Lys	Thr	Tyr	Pro	Asp 265	Thr	Asp	Ser	Phe	Asn 270	Thr	Val
Ala	Glu	Ile 275	Thr	Gly	Ser	Lys	Tyr 280	Pro	Glu	Gln	Val	Val 285	Leu	Val	Ser
Gly	His 290	Leu	Asp	Ser	Trp	Asp 295	Val	Gly	Gln	Gly	Ala 300	Met	Asp	Asp	Gly
Gly 305	Gly	Ala	Phe	Ile	Ser 310	Trp	Glu	Ala	Leu	Ser 315	Leu	Ile	Lys	Asp	Leu 320
Gly	Leu	Arg	Pro	Lys 325	Arg	Thr	Leu	Arg	Leu 330	Val	Leu	Trp	Thr	Ala 335	Glu
Glu	Gln	Gly	Gly 340	Val	Gly	Ala	Phe	Gln 345	Tyr	Туг	Gln	Leu	His 350	Lys	Val
Asn	Ile	Ser 355	Asn	Tyr	Ser	Leu	Val 360	Met	Glu	Ser	Asp	Ala 365	Gly	Thr	Phe
Leu	Pro 370	Thr	Gly	Leu	Gln	Phe 375	Thr	Gly	Ser	Glu	Lys 380	Ala	Arg	Ala	Il∈
Met 385	Glu	Glu	Val	Met	Ser 390	Leu	Leu	Gln	Pro	Leu 395	Asn	Ile	Thr		Val 400
Leu	Ser	His	Gly	Glu 405	Gly	Thr	Asp	Ile	Asn 410	Phe	Trp	Ile	Gln	Ala 415	Gly

Val Pro Gly Ala Ser Leu Leu Asp Asp Leu Tyr Lys Tyr Phe Phe

420 425 430

His His Ser His Gly Asp Thr Met Thr Val Met Asp Pro Lys Gln Met 435 440 445

Met Glu Glu Met Leu Pro Arg Ser 465 470

<210> 756

<211> 178

<212> PRT

<213> Homo sapiens

<400> 756

Ser Ile Tyr Ser Pro His Thr Gly Ile Gln Glu Tyr Gln Asp Gly Val 1 5 10 15

Pro Lys Ile Pro Thr Ala Cys Ile Thr Val Glu Asp Ala Glu Met Met 20 25 30

Ser Arg Met Ala Ser His Gly Ile Lys Ile Val Ile Gln Leu Lys Met 35 40 45

Gly Ala Lys Thr Tyr Pro Asp Thr Asp Ser Phe Asn Thr Val Ala Glu 50 60

Ile Thr Gly Ser Lys Tyr Pro Glu Gln Val Val Leu Val Ser Gly His
65 70 75 80

Leu Asp Ser Trp Asp Val Gly Gln Gly Ala Met Asp Asp Gly Gly Gly 95

Ala Phe Ile Ser Trp Glu Ala Leu Ser Leu Ile Lys Asp Leu Gly Leu 100 105 110

Arg Pro Lys Arg Thr Leu Arg Leu Val Leu Trp Thr Ala Glu Glu Gln 115 120 125

Gly Gly Val Gly Ala Phe Gln Tyr Tyr Gln Leu His Lys Val Asn Ile 130 140

Ser Asn Tyr Ser Leu Val Met Glu Ser Asp Ala GlyThr Phe Leu Pro 145 150 155 160

Thr Gly Leu Gln Phe Thr Gly Ser Glu Lys Ala Arg Ala Ser Trp Arg 165 170 175

Arg Leu

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<210> 757
<211> 199
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (142)
<223> Xaa equals any of the naturally occurring Lamino acids
Met Lys Leu Gly Cys Val Leu Met Ala Trp Ala Leu Tyr Leu Ser Leu
Gly Val Leu Trp Val Ala Gln Met Leu Leu Ala Ala Ser Phe Glu Thr
                                 25
Leu Gln Cys Glu Gly Pro Val Cys Thr Glu Glu Ser Ser Cys His Thr
Glu Asp Asp Leu Thr Asp Ala Arg Glu Ala Gly Phe Gln Val Lys Ala
Tyr Thr Phe Ser Glu Pro Phe His Leu Ile Val Ser Tyr Asp Trp Leu
Ile Leu Gln Gly Pro Ala Lys Pro Val Phe Glu Gly Asp Leu Leu Val
Leu Arg Cys Gln Ala Trp Gln Asp Trp Pro Leu Thr Gln Val Thr Phe
Tyr Arg Asp Gly Ser Ala Leu Gly Pro Pro Gly Pro Asn Arg Glu Phe
        115
Ser Ile Thr Val Val Gln Lys Ala Asp Ser Gly His Tyr Xaa Cys Ser
                        135
Gly Ile Phe Gln Ser Pro Gly Pro Gly Ile Pro Glu Thr Ala Ser Val
145
                    150
                                        155
Val Ala Ile Thr Val Gln Glu Leu Phe Pro Ala Pro Ile Leu Leu
Gln Gly Trp Lys Asp Ser Ala Lys Gln Gly Gly Ser Pro Gln Asn Ser
                                185
Arg Ser Pro Gln Leu Gln Lys
```

<210> 758 <211> 2 <212> PRT

195

<213> Homo sapiens

<400> 758 Ser Trp 1

<210> 759

<211> 32

<212> PRT

<213> Homo sapiens

<400> 759

Cys Leu Glu Thr Phe Trp Ser Leu Tyr Leu Gly Gly Trp Gly Met Val  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Gly Cys Val Cys Tyr Trp His Pro Val Asn Arg Ser Gln Gly Cys Arg 20 25 30

<210> 760

<211> 283

<212> PRT

<213> Homo sapiens

<400> 760

Met Tyr Leu Ser Ala Leu Gln Ser Leu Ile Pro Ser Leu Phe Ala Leu  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Val Leu Gln Asn Ala Pro Phe Ser Ser Lys Ala Lys Leu His Gly Glu 20 25 30

Val Pro Gln Ile Glu Val Thr Arg Phe Pro Arg Pro Met Ser Pro Leu 35 40 45

Gln Asp Val Ser Thr Ile Ile GlySer Arg Glu Gln Leu Ala Val Leu 50 55 60

Leu Gln Leu Tyr Asp Tyr Gln Leu Glu Gln Glu Gly Thr Thr Gly Trp 65 70 75 80

Glu Ser Leu Leu Trp Val Val Asn Gln Leu Leu Pro Gln Leu Ile Glu 85 90 95

Ile Val Gly Lys Ile Asn Val Thr Ser Thr Ala Cys Val His Glu Phe 100 105 110

Ser Arg Phe Phe Trp Arg Leu Cys Arg Thr PheGly Lys Ile Phe Thr 115 120 125

Asn Thr Lys Val Lys Pro Gln Phe Gln Glu Ile Leu Arg Leu Ser Glu 130 135 140

Glu Asn Ile Asp Ser Ser Ala Gly Asn Gly Val Leu Thr Lys Ala Thr

225 230 235 240

Met Phe Glu Val Cys Gln His Met Pro Leu Leu Val Ser Ile Ile Met 245 250 255

Ile Phe Phe Phe Leu Arg Arg Arg Glu Phe Phe Leu Ile Lys Arg 260 265 270

Leu Cys Ile Ser Lys Lys Lys Lys Lys Lys Lys 275 280

<221> SITE <222> (271)

```
<210> 761
<211> 286
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (204)
<223> Xaa equals any of the naturally occurring Famino acids
<220>
<221> SITE
<222> (224)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (228)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (264)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
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<223> Xaa equals any of the naturally occurring L-amino acids

<400> 761 Met Tyr Leu Ser Ala Leu Gln Ser Leu Ile Pro Ser Leu Phe Ala Leu 1.0 Val Leu Gln Asn Ala Pro Phe Ser Ser Lys Ala Lys Leu His Gly Glu Val Pro Gln Ile Glu Val Thr Arg Phe Pro Arg Pro Met Ser Pro Leu Gln Asp Val Ser Thr Ile Ile Gly Ser Arg Glu Gln Leu Ala Val Leu Leu Gln Leu Tyr Asp Tyr Gln Leu Glu Gln Glu Gly Thr Thr Gly Trp 75 Glu Ser Leu Leu Trp Val Val Asn Gln Leu Leu Pro Gln Leu Ile Glu 90 Ile Val Gly Lys Ile Asn Val Thr Ser Thr Ala Cys Val His Glu Phe 105 Ser Arg Phe Phe Trp Arg Leu Cys Arg Thr Phe Gly Lys Ile Phe Thr Asn Thr Lys Val Lys Pro Gln Phe Gln Glu Ile Leu Arg Leu Ser Glu 135 Glu Asn Ile Asp Ser Ser Ala Gly Asn Gly Val Leu Thr Lys Ala Thr Val Pro Ile Tyr Ala Thr Gly Val Leu Thr Cys Tyr Ile Gln Glu Glu Asp Arg Lys Leu Leu Val Gly Phe Leu Glu Asp Val Met Thr Leu Leu 180 185 Ser Leu Ser His Ala Pro Leu Asp Ser Leu Lys Xaa Ser Phe Val Glu 195 205 200 Leu Gly Ala Asn Gln Ala Tyr His Glu Leu Leu Thr Val Leu Xaa 215 Tyr Gly Val Xaa His Thr Ser Ala Leu Val Arg Cys Thr Ala Ala Arg 225 Met Phe Glu Leu Leu Val Lys Gly Val Asn Glu Thr Leu Val Ala Gln 250 Arg Val Val Pro Ala Leu His Xaa Leu Ser Pro Val Asp Pro Xaa Asn Leu Cys Gln Asp Cys His Asn Phe Gln Pro Leu Gly Leu Phe 280

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<210> 762
<211> 45
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (43)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 762
Met Gln Ala Pro Leu Gln Asp Cys Gly Arg Ser Val Ser Leu Arg Leu
Ala Cys Val Leu Ala Pro Leu Thr Thr Ser Ser Arg Gly Cys His Leu
Gln Leu Pro Gln Asp Lys Gly Lys Ala Arg Xaa Asp Ser
                             40
<210> 763
<211> 305
<212> PRT
<213> Homo sapiens
<400> 763
Met Gly Ile Leu Leu Gly Leu Leu Leu Gly His Leu Thr Val Asp
                                     10
Thr Tyr Gly Arg Pro Ile Leu Glu Val Pro Glu Ser Val Thr Gly Pro
Trp Lys Gly Asp Val Asn Leu Pro Cys Thr Tyr Asp Pro Leu Gln Gly
                             40
Tyr Thr Gln Val Leu Val Lys Trp Leu Val Gln Arg Gly Ser Asp Pro
Val Thr Ile Phe Leu Arg Asp Ser Ser Gly Asp His Ile Gln Gln Ala
Lys Tyr Gln Gly Arg Leu His Val Ser His Lys Val Pro Gly Asp Val
Ser Leu Gln Leu Ser Thr Leu Glu Met Asp Asp Arg Ser His Tyr Thr
                                105
Cys Glu Val Thr Trp Gln Thr Pro Asp Gly Asn Gln Val Val Arg Asp
```

140

Lys Ile Thr Glu Leu Arg Val Gln Lys His Ser Ser Lys Leu Leu Lys

Thr Lys Thr Glu Ala Pro Thr Thr Met Thr Tyr Pro Leu Lys Ala Thr

135

130

145 150 155 **6**0 Ser Thr Val Lys Gln Ser Trp Asp Trp Thr Thr Asp Met Asp Gly Tyr 170 Leu Gly Glu Thr Ser Ala Gly Pro Gly Lys Ser Leu Pro Val Phe Ala 180 185 Ile Ile Leu Ile Ile Ser Leu Cys Cys Met Val Val Phe Thr Met Ala 200 Tyr Ile Met Leu Cys Arg Lys Thr Ser Gln Gln Glu His Val Tyr Glu 215 Ala Ala Arg Ala His Ala Arg Glu Ala Asn Asp Ser Gly Glu Thr Met 235 Arg Val Ala Ile Phe Ala Ser Gly Cys Ser Ser Asp Glu Pro Thr Ser Gln Asn Leu Gly Asn Asn Tyr Ser Asp Glu Pro Cys Ile Gly Gln Glu 260 265 Tyr Gln Ile Ile Ala Gln Ile Asn Gly Asn Tyr Ala Arg Leu Leu Asp 280 Thr Val Pro Leu Asp Tyr Glu Phe Leu Ala Thr Glu Gly Lys Ser Val 295 Cys 305

<210> 764 <211> 72 <212> PRT

<213> Homo sapiens

<400> 764

Met Lys Phe Val Pro Cys Leu Leu Leu Val Thr Leu Ser Cys Leu Gly 1 5 10

Thr Leu Gly Gln Ala Pro Arg Gln Lys Gln Gly Ser Thr Gly Glu Glu 20 25 30

Phe His Phe Gln Thr Gly Gly Arg Asp Ser Cys Thr Met Arg Pro Ser 35 40 45

Ser Leu Gly Gln Gly Ala Gly Glu Val Trp Leu Arg Val Arg Leu Pro 50 55 60

Gln His Arg Pro Asp Leu Leu Val 65 70

```
<210> 765
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<211> 121

<212> PRT

<213> Homo sapiens

<400> 765

Met Gly Leu Trp Leu Gly Met Leu Ala Cys Val Phe Leu Ala Thr Ala 1 5 10 15

Ala Phe Val Ala Tyr Thr Ala Arg Leu Asp Trp Lys Leu Ala Ala Glu 20 25 30

Glu Ala Lys Lys His Ser Gly Arg Gln Gln Gln Arg Ala Glu Ser 35 40 45

Thr Ala Thr Arg Pro Gly Pro Glu Lys Ala Val Leu Ser Ser Val Ala 50 55 60

Thr Gly Ser Ser Pro Gly Ile Thr Leu Thr Thr Tyr Ser Arg Ser Glu 65 70 75 80

Cys His Val Asp Phe Phe Arg Thr Pro Glu Glu Ala His Ala Leu Ser 85 90 95

Ala Pro Thr Ser Arg Leu Ser Val Lys Gln Leu Val Ile Arg Arg Gly 100 105 110

Ala Ala Leu Gly Ala Ala Ser Ala His 115 120

<210> 766

<211> 327

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (300)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 766

Met Trp Arg Pro Ser Val Leu Leu Leu Leu Leu Leu Leu Arg His Gly
1 5 10 15

Ala Gln Gly Lys Pro Ser Pro Asp Ala Gly Pro His Gly Gln Gly Arg

Val His Gln Ala Ala Pro Leu Ser Asp Ala Pro His Asp Asp Ala His 35 40 45

Gly Asn Phe Gln Tyr Asp His Qu Ala Phe Leu Gly Arg Glu Val Ala 50 55 60

Lys Glu Phe Asp Gln Leu Thr Pro Glu Glu Ser Gln Ala Arg Leu Gly 65 70 75 80

Arg Ile Val Asp Arg Met Asp Arg Ala Gy Asp Gly Asp Gly Trp Val 85 90 95

Ser Leu Ala Glu Leu Arg Ala Trp Ile Ala His Thr Gln Gln Arg His 100 105 110

Ile Arg Asp Ser Val Ser Ala Ala Trp Asp Trr Tyr Asp Thr Asp Arg
115 120 125

Asp Gly Arg Val Gly Trp Glu Glu Leu Arg Asn Ala Thr Tyr Gly His 130 135 140

Tyr Ala Pro Gly Glu Glu Phe His Asp Val Glu Asp Ala Glu Thr  $\mbox{\fontfamily Tr}$  145 150 155 160

Lys Lys Met Leu Ala Arg Asp Glu Arg Arg Phe Arg Val Ala Asp Gln
165 170 175

Asp Gly Asp Ser Met Ala Thr Arg Glu Glu Leu Thr Ala Phe  $\oplus$ u His 180 185 190

Pro Glu Glu Phe Pro His Met Arg Asp Ile Val Ile Ala Glu Thr Leu 195 200 205

Glu Asp Leu Asp Arg Asn Lys Asp Gly Tyr Val Gln Val Glu Glu Tyr 210 215 220

Ile Ala Asp Leu Tyr Ser Ala Glu Pro Gly Glu Glu Glu Pro Ala Trp 225 230 235 240

Val Gln Thr Glu Arg Gln Gln Phe Arg Asp Phe Arg Asp Leu Asn Lys 245 250 255

Asp Gly His Leu Asp Gly Ser Glu Val Gly His Trp Val Leu Pro Pro 260 265 270

Ala Gln Asp Gln Pro Leu Val Glu Ala Asn His Leu Leu His Glu Ser 275 280 285

Asp Thr Asp Lys Asp Gly Arg Leu Ser Lys Ala Xaa Ile Leu Gly Asn 290 295 300

Trp Asn Met Phe Val Gly Ser Gln Ala Thr Asn Tyr Gly Glu Asp Leu 305 310 315 320

Thr Arg His His Asp Glu Leu 325

<210> 767

<211> 184

<212> PRT

<213> Homo sapiens

<220>

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<221> SITE
<222> (140)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (145)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (146)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (148)
<223> Xaa equals any of the naturally occurrig L-amino acids
<220>
<221> SITE
<222> (165)
<223> Xaa equals any of the naturally occurring \pm amino acids
<400> 767
Met Trp Arg Pro Ser Val Leu Leu Leu Leu Leu Leu Leu Arg His Gly
Ala Gln Gly Lys Pro Ser Pro Asp Ala Gly Pro His Gly Gln Gly Arg
Val His Gln Ala Ala Pro Leu Ser Asp Ala Pro His Asp Asp Ala His
Gly Asn Phe Gln Tyr Asp His Glu Ala Phe Leu Gly Arg Glu Val Ala
     50
                         55
Lys Glu Phe Asp Gln Leu Thr Pro Glu Glu Ser Gln Ala Arg Leu Gly
Arg Ile Val Asp Arg Met Asp Arg Ala Gly Asp Gly Asp Gly Trp Val
                                                          95
Ser Leu Ala Glu Leu Arg Ala Trp Ile Ala His Thr Gln Gln Arg His
Ile Arg Asp Ser Val Ser Ala Ala Trp Asp Thr Tyr Asp Thr Asp Arg
        115
Asp Gly Arg Val Gly Trp Glu Glu Leu Arg Asn Xaa Thr Tyr Gly His
                        135
Xaa Xaa Pro Xaa Glu Glu Phe His Asp Val Glu Asp Ala Glu Thr Tyr
145
Lys Lys Met Leu Xaa Arg Asp Glu Arg Arg Phe Arg Val Ala Asp Gln
                165
                                     170
```

## Asp Gly Asp Ser Met Ala Thr Arg 180

<210> 768 <211> 509 <212> PRT <213> Homo sapiens <400> 768 Met Thr Trp Arg Met Gly Pro Arg Phe Thr Met Leu Leu Ala Met Trp Leu Val Cys Gly Ser Glu Pro His Pro His Ala Tm Ile Arg Gly Ser His Gly Gly Arg Lys Val Pro Leu Val Ser Pro Asp Ser Ser Arg Pro 40 Ala Arg Phe Leu Arg His Thr Gly Arg Ser Arg Gly Ile Glu Ag Ser Thr Leu Glu Glu Pro Asn Leu Gln Pro Leu Gln Arg Arg Ser Val Pro Val Leu Arg Leu Ala Arg Pro Thr Glu Pro Pro Ala Arg Ser Asp Ile Asn Gly Ala Ala Val Arg Pro Glu Gln Arg Pro Ala Ala Arg Gly Ser Pro Arg Glu Met Ile Arg Asp Glu Gly Ser Ser Ala Arg Ser Arg Met Leu Arg Phe Pro Ser Gly Ser Ser Ser Pro Asn Ile Leu Ala Ser 130 135 Phe Ala Gly Lys Asn Arg Val Trp Val Ile Ser Ala Pro His Ala Ser 150 155 Glu Gly Tyr Tyr Arg Leu Met Met Ser Leu Leu Lys Asp Asp Val Tyr Cys Glu Leu Ala Glu Arg His Ile Gln Gln Ile Val Leu Phe His Gln 185 Ala Gly Glu Glu Gly Gly Lys Val Arg Arg Ile Thr Ser Glu Gly Gln 195 Ile Leu Glu Gln Pro Leu Asp Pro Ser Leu Ile Pro Lys Leu Met Ser 215 Phe Leu Lys Leu Glu Lys Gly Lys Phe Gly Met Val Leu Leu Lys Lys 225 230

```
Thr Leu Gln Val Glu Glu Arg Tyr Pro Tyr Pro Val Arg Leu Glu Ala 245 250 255
```

Met Tyr Glu Val Ile Asp Gln Gly Pro Ile Arg Arg Ile Glu Lys Ile 260 265 270

Arg Gln Lys Gly Phe Val Gln Lys Cys Lys Ala Ser Gly Val Glu Gly 275 280 285

Gln Val Val Ala Glu Gly Asn Asp Gly Gly Gly Gly Ala Gly Arg Pro 290 295 300

Ser Leu Gly Ser Glu Lys Lys Lys Glu Asp Pro Arg Arg Ala Gln Val 305 310 315 320

Pro Pro Thr Arg Glu Ser Arg Val Lys Val Leu Arg Lys Leu Ala Ala 325 330 335

Thr Ala Pro Ala Phe Pro Gln Pro Pro Ser Thr Pro Arg Ala Thr Thr 340 345 350

Val Thr Val Ala Ala Arg Pro Met Thr Thr Thr Ala Phe Pro Thr Thr 370 375 380

Gln Arg Pro Trp Thr Pro Ser Pro Ser His Arg Pro Pro Thr Thr Thr 385 390 395 400

Glu Val Ile Thr Ala Arg Arg Pro Ser Val Ser Glu Asn Leu Tyr Pro 405 410 415

Pro Ser Arg Lys Asp Gln His Arg Glu Arg Pro Gln Thr Thr Arg Arg 420 425 430

Pro Ser Lys Ala Thr Ser Leu Glu Ser Phe Thr Asn Ala Pro Pro Thr 435 440 445

Thr Ile Ser Glu Pro Ser Thr Amg Ala Ala Gly Pro Gly Arg Phe Arg 450 455 460

Asp Asn Arg Met Asp Arg Arg Glu His Gly His Arg Asp Pro Asn Val 465 470 475 480

Val Pro Gly Pro Pro Lys Pro Ala Lys Gh Lys Pro Pro Lys Lys 485 490 495

Ala Gln Asp Lys Ile Leu Ser Asn Glu Tyr Glu Glu Val 500 505

<sup>&</sup>lt;210> 769

<sup>&</sup>lt;211> 554

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Homo sapiens

- <400> 769
- Met Gly Pro Arg Phe Thr Met Leu Leu Ala Met Trp Leu Val Cys Gly  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$
- Ser Glu Pro His Pro His Ala Thr Ile Arg Gly Ser His Gly Gly Arg 20 25 30
- Lys Val Pro Leu Val Ser Pro Asp Ser Ser Arg Pro Ala Arg Phe Leu 35 40 45
- Arg His Thr Gly Arg Ser Arg Gly Ile Glu Arg Ser Thr Leu Glu Glu 50 55 60
- Pro Asn Leu Gln Pro Leu Gln Arg Arg Ser Val Pro Val Leu Arg
  65 70 75 80
- Leu Ala Arg Pro Thr Glu Pro Pro Ala Arg Ser Asp Ile Asn Gly Ala 85 90 95
- Ala Val Arg Pro Glu Gln Arg Pro Ala Ala Arg Gly Ser Pro Arg Glu 100 105 110
- Met Ile Arg Asp Glu Gly Ser Ser Ala Arg Ser Arg Met Leu Arg Phe 115 120 125
- Pro Ser Gly Ser Ser Ser Pro Asn IleLeu Ala Ser Phe Ala Gly Lys 130 140
- Asn Arg Val Trp Val Ile Ser Ala Pro His Ala Ser Glu Gly Tyr Tyr 145 150 155 160
- Arg Leu Met Met Ser Leu Leu Lys Asp Asp ValTyr Cys Glu Leu Ala 165 170 175
- Glu Arg His Ile Gln Gln Ile Val Leu Phe His Gln Ala Gly Glu Glu 180 185 190
- Gly Gly Lys Val Arg Arg Ile Thr Ser Glu Gly GlnIle Leu Glu Gln 195 200 205
- Pro Leu Asp Pro Ser Leu Ile Pro Lys Leu Met Ser Phe Leu Lys Leu 210 215 220
- Glu Lys Gly Lys Phe Gly Met Val Leu Leu Lys Lys Thr Leu Gln Val 225 230 235 240
- Glu Glu Arg Tyr Pro Tyr Pro Val Arg Leu Glu Ala Met Tyr Glu Val 245 250 255
- Ile Asp Gln Gly Pro Ile Arg Arg Ile Glu Lys Ile Arg Gln Lys Gly
  260 265 270
- Phe Val Gln Lys Cys Lys Ala Ser Gly Val Glu Gly Gln Val Val Ala 275 280 285
- Glu Gly Asn Asp Gly Gly Gly Ala Gly Arg Pro Ser Gln Gly Ser

	290					295					300				
Glu 305	Lys	Lys	Lys	Glu	Asp 310	Pro	Arg	Arg	Ala	Gln 315	Val	Pro	Pro	Thr	Arg 320
Glu	Ser	Arg	Val	Lys 325	Val	Leu	Arg	Lys	Leu 330	Ala	Ala	Thr	Ala	Pro 335	Ala
Phe	Pro	Gln	Pro 340	Pro	Ser	Thr	Pro	Arg 345	Ala	Thr	Thr	Leu	Thr 350	Pro	Ala
Pro	Ala	Thr 355	Thr	Val	Thr	Arg	Ser 360	Thr	Ser	Arg		Gly 365	Asn	Arg	Суѕ
Cys	Lys 370	Thr	Tyr	Asp	His	His 375	Trp	Leu	Ser	His	His 380	Ala	Glu	Ala	Leu
Asp 385	Pro	Leu	Thr	Leu	Pro 390	Thr	Gly	Pro	Leu	Gln 3 <b>5</b>	Pro	Leu	Arg		Ile 400
Thr	Ala	Arg	Arg	Pro 405	Ser	Val	Ser	Arg	Glu 410	Ser	Leu	Pro	Ser	Ile 415	Pro
Gly	Arg	Ile	Ser 420	Thr	Gly	Arg	Gly	His 425	Arg	Gln	Pro		Gly 430	Pro	Ala
Arg	Pro	Thr 435	Ser	Leu	Glu	Ser	Phe 440	Thr	Asn	Ala	Pro	Pro 445	Thr	Thr	Ile
Ser	Glu 450	Pro	Ser	Thr	Arg	Ala 455	Ala	Gly	Pro	Gly	Arg 460	Phe	Arg	Asp	Asn
Arg 465	Met	Asp	Arg	Arg	Glu 470	His	Gly	His	Arg	Asp 475	Pro	Asn	Val	Val	Pro 480
Gly	Pro	Pro	Lys	Pro 485	Ala	Lys	Glu	Lys	Pro 490	Pro	Lys	Lys	Lys	Ala 49	Gln

Asp Lys Ile Leu Ser Asn Glu Tyr Glu Glu Lys Tyr Asp Leu Ser Arg

Pro Thr Ala Ser Gln Leu Glu Asp Glu Leu Gln Val Gly Asn Val Pro

Leu Lys Lys Ala Lys Glu Ser Lys Lys His Glu Lys Leu Glu Lys Pro

520

535

505

Glu Lys Glu Lys Lys Lys Lys Lys Lys 545 550

500

515

<210> 770

530

<211> 23

<212> PRT

<213> Homo sapiens

510

540 .

<400> 770 Met Leu Ala Leu Leu Gly Leu Leu Ala Gly Thr Glu His Pro Pro Gly 1 Pro Gln Gly Pro Gly Pro Ser 20 <210> 771 <211> 25 <212> PRT <213> Homo sapiens <400> 771 Met Val Asn Ile Phe Gly Phe Val Ser Cys Ile Val Phe Val Val Ala Val Gln Leu Cys Tyr Met Lys Gln Pro 20 <210> 772 <211> 40 <212> PRT <213> Homo sapiens <400> 772 Met Leu Phe Pro Leu Leu Ala Trp Pro His Leu Leu Ser Leu Trp Val Cys Leu Thr Ala Thr Ser Pro Ser Lys Pro Ser Ala Pro His Ser His 25 Gln Met Asp Leu Cys Leu Leu His 35 <210> 773 <211> 305 <212> PRT <213> Homo sapiens <400> 773 Met Ala Ala Gly Leu Ala Arg Leu Leu Leu Leu Gly Leu Ser Ala Gly Gly Pro Ala Pro Ala Gly Ala Ala Lys Met Lys Val Val Glu Glu Pro Asn Ala Phe Gly Val Asn Asn Pro Phe Leu Pro Gln Ala Ser Arg

40

55

50

Leu Gln Ala Lys Arg Asp Pro Ser Pro Val Ser Gly Pro Val His Leu

Phe Arg Leu Ser Gly Lys Cys Phe Ser Leu Val Glu Ser Thr Tyr Lys
65 70 75 80

Tyr Glu Phe Cys Pro Phe His Asn Val Thr Gln His Glu Gln Thr Phe 85 90 95

Arg Trp Asn Ala Tyr Ser Gly Ile Leu Gly Ile Trp His Glu Trp Glu
100 105 110

Ile Ala Asn Asn Thr Phe Thr Gly Met Trp Met Arg Asp Gly Asp Ala 115 120 125

Cys Arg Ser Arg Ser Arg Gln Ser Lys Val Glu Leu Ala Cys Gly Lys 130 135 140

Ser Asn Arg Leu Ala His Val Ser Glu Pr Ser Thr Cys Val Tyr Ala 145 150 155 160

Leu Thr Phe Glu Thr Pro Leu Val Cys His Pro His Ala Leu Leu Val
165 170 175

Tyr Pro Thr Leu Pro Glu Ala Leu Gh Arg Gln Trp Asp Gln Val Glu 180 185 190

Gln Asp Leu Ala Asp Glu Leu Ile Thr Pro Gln Gly His Glu Lys Leu 195 200 205

Leu Arg Thr Leu Phe Glu Asp Ala Gly Tyr Leu Ly Thr Pro Glu Glu 210 215 220

Asn Glu Pro Thr Gln Leu Glu Gly Gly Pro Asp Ser Leu Gly Phe Glu 225 230 235 240

Thr Leu Glu Asn Cys Arg Lys Ala His Lys Glu Leu Ser L**y** Glu Ile 245 250 255

Lys Arg Leu Lys Gly Leu Leu Thr Gln His Gly Ile Pro Tyr Thr Arg  $260 \hspace{1.5cm} 265 \hspace{1.5cm} 270 \hspace{1.5cm}$ 

Pro Thr Glu Thr Ser Asn Leu Glu His Leu Gly His Glu Thr Por Arg 275 280 285

Ala Lys Ser Pro Glu Gln Leu Arg Gly Asp Pro Gly Leu Arg Gly Ser 290 295 300

Leu 305

<210> 774

<211> 122

<212> PRT

<213> Homo sapiens

<220>

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<221> SITE
<222> (92)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (100)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (109)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (116)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 774
Met Leu Ala Leu Thr Leu Ala Lys Ala Asp Ser Pro Arg Thr Ala Leu
                                     10
Leu Cys Ser Ala Trp Leu Leu Thr Ala Ser Phe Ser Ala Gln Gln His
                                 25
Lys Gly Ser Leu Gln Val His Gln Thr Leu Ser Val Glu Met Asp Gln
                             40
Val Leu Lys Ala Leu Ser Phe Pro Lys Lys Lys Ala Ala Leu Leu Ser
Thr Ala Ile Leu Cys Phe Leu Arg Thr Ala Leu Arg Gln Ser Phe Ser
Ser Ala Trp Asn Pro Gly Ala Leu Lys Gly Pro Xaa Thr Ala Ala Thr
Lys Asp Thr Xaa Leu Thr Ser Leu Arg Met Ser Lys Xaa Gly Pro Gly
            100
                                105
                                                     110
His Trp Ala Xaa Lys Thr Ser Trp Cys Lys
        115
                            120
<210> 775
<211> 216
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring bamino acids
<220>
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<221> SITE
```

<222> (18)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 775

Cys Phe Pro Trp Gly Xaa Ala Leu Arg Gln Lys Leu Phe Pro Ser Ala 1 10 15

Leu Xaa Ala Leu Val Pro Ser Gly Ala Gln Pro Leu Pro Ala Thr Lsy 20 25 30

Asp Thr Val Leu Ala Pro Leu Arg Met Ser Gln Val Arg Ser Leu Val 35 40 45

Ile Gly Leu Gln Asn Leu Leu Val Gln Lys Asp Pro Leu Leu Ser Gln 50 55 60

Ala Cys Val Gly Cys Leu Glu Ala Leu Leu Asp Tyr Leu Asp Ala Arg 65 70 75 80

Ser Pro Asp Ile Ala Leu His Val Ala Ser Gln Pro Trp Asn Arg Phe 85 90 95

Leu Leu Phe Thr Leu Leu Asp Ala Gly Glu Asn Ser Phe Leu Arg Pro  $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110 \hspace{1.5cm}$ 

Glu Ile Leu Arg Leu Met Thr Leu Phe Met Arg Tyr Arg Ser Ser Ser 115 120 125

Val Leu Ser His Glu Glu Val Gly Asp Val Leu Gln Gly Val Ala Leu 130 135 140

Ala Asp Leu Ser Thr Leu Ser Asn Thr Thr Leu Gln Ala Leu His Gly 145 55 160

Phe Phe Gln Gln Leu Gln Ser Met Gly His Leu Ala Asp His Ser Met 165 170 175

Ala Gln Thr Leu Gln Ala Ser Leu Glu Gly Leu Pro Pro Ser Thr Ser 180 185 190

Ser Gly Gln Pro Pro Leu Gln Asp Met Leu Cys Leu Gly Gly Val Ala 195 200 205

Val Ser Leu Ser His Ile Arg Asn 210 215

<210> 776

<211> 127

<212> PRT

<213> Homo sapiens

<400> 776

Met Leu Pro Leu Leu Ile Ile Cys Leu Leu Pro Ala Ile Glu Gly Lys
1 10 15

Asn Cys Leu Arg Cys Trp Pro Glu Leu Ser Ala Leu Ile Asp Tyr Asp 20 25 30

Leu Gln Ile Leu Trp Val Thr Pro Gly Pro Pro Thr Glu Leu Ser Gln 35 40 45

Ser Ile His Ser Leu Phe Leu Glu Asp Asn Asn Phe Leu Lys Pro Trp 50 60

Tyr Leu Asp Arg Asp His Leu Glu Glu Glu Thr Ala Lys Phe Phe Thr 65 70 75 80

Gln Val His Gln Ala Ile Lys Thr Leu Arg Asp Asp Lys Thr Val Leu 85 90 95

Leu Glu Glu Ile Tyr Thr His Lys Asn Leu Phe Thr Glu Arg Leu Asn 100 105 110

Lys Ile Ser Asp Gly Leu Lys Glu Lys Glu Pro His Pro Ser Pro 115 120 125

<210> 777

<211> 164

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (126)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 777

Met Leu Pro Leu Leu Ile Ile Cys Leu Leu Pro Ala Ile Glu Gly Lys 1 5 D 15

Asn Cys Leu Arg Cys Trp Pro Glu Leu Ser Ala Leu Ile Asp Tyr Asp 20 25 30

Leu Gln Ile Leu Trp Val Thr Pro Gly Pro Pro Thr Glu Leu Ser Gln 35 40 45

Ser Ile His Ser Leu Phe Leu Glu Asp Asn Asn Phe Leu Lys Pro Trp 50 55 60

Tyr Leu Asp Arg Asp His Leu Glu Glu Glu Thr Ala Lys Phe Phe Thr 65 70 75

Gln Val His Gln Ala Ile Lys Thr Leu Arg Asp Asp Lys Thr Val Leu 85 90 95

Leu Glu Glu Ile Tyr Thr His Lys Asn Leu Phe Thr Glu Arg Leu Asn 100 105 110

Lys Ile Ser Asp Gly Leu Lys Glu Lys Gly Ala Pro Pro Xaa Ser Met

115 120 125

Asn Ala Phe Pro Ala Pro Ser Pro Thr Cys Thr Pro Glu Pro Leu Gly 130 135 140

Ser Val Cys Leu Pro Ser Thr Ser Val Ser Leu Pro Ser His Leu Pro 145 150 155 160

Gly Ser Leu Gln

<210> 778

<211> 159

<212> PRT

<213> Homo sapiens

<400> 778

Met Trp Leu Phe Ile Leu Leu Ser Leu Ala Leu Ile SerAsp Ala Met
1 5 10 15

Val Met Asp Glu Lys Val Lys Arg Ser Phe Val Leu Asp Thr Ala Ser 20 25 30

Ala Ile Cys Asn Tyr Asn Ala His Tyr Lys Asn His Pro LysTyr Trp 35 40 45

Cys Arg Gly Tyr Phe Arg Asp Tyr Cys Asn Ile Ile Ala Phe Ser Pro 50 55 60

Asn Ser Thr Asn His Val Ala Leu Lys Asp Thr Gly Asn Gln Leu Ile 65 70 75 80

Val Thr Met Ser Cys Leu Asn Lys Glu Asp Thr Gly Trp Tyr Trp Cys 85 90 95

Gly Ile Gln Arg Asp Phe Ala Arg Asp Asp Met Asp Phe Thr Glu Leu 100 105 110

Ile Val Thr Asp Asp Lys Gly Thr Trp Pro Met Thr Leu Val Trp Glu 115 120 125

Arg Leu Ser Gly Thr Lys Pro Glu Ala Ala Arg Leu Pro Lys Leu Ser

Ala Arg Leu Thr Ala Pro Gly Arg Pro Phe Ser Ser Phe Ala Tyr 145 150 155

<210> 779

<211> 71

<212> PRT

<213> Homo sapiens

<220>

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<221> SITE
<222> (40)
<223> Xaa equals any of the naturally occurring I-amino acids
<220>
<221> SITE
<222> (51)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (55)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 779
Met Trp Leu Phe Ile Leu Leu Ser Leu Ala Leu Ile Ser Asp Ala Met
                                     10
Val Met Asp Glu Lys Val Lys Arg Ser Leu Cys Trp Thr Arg Leu Leu
                                 25
Pro Ser Ala Thr Thr Met Pro Xaa Thr Arg Ile Thr Pro Asn Thr Gly
Ala Glu Xaa Ile Ser Val Xaa Thr Ala Thr Ser Ser Pro Ser Pro Leu
                        5.5
Thr Ala Pro Ile Met Trp Pro
<210> 780
<211> 71
<212> PRT
<213> Homo sapiens
<400> 780
Met Val Gln Gly Pro Leu Thr His Leu Met Leu Val Leu Leu Ile Ser
Leu Ile Phe Leu Ser Arg Gly Ser Gly ArgAla Trp Ala Phe Ser His
Ser Cys Phe Lys Thr Ser Asp Leu Leu Pro Cys Arg Asn Arg Trp Glu
                             40
Val Ile Glu Phe Leu His Tyr Ser Asn Leu His Ser HisIle Ser Leu
Ser Val Thr Lys Thr Phe Leu
 65
<210> 781
```

<211> 140

```
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (136)
<223> Xaa equals any of the naturally occuring L-amino acids
<400> 781
Met Ala Ser Leu Gly Leu Gln Leu Val Gly Tyr Ile Leu Gly Leu Leu
Gly Leu Leu Gly Thr Leu Val Ala Met Leu Leu Pro Ser Trp Lys Thr
                                25
Ser Ser Tyr Val Gly Ala Ser Ile Val Thr Ala Val Gly Phe Ser Lys
Gly Leu Trp Met Glu Cys Ala Thr His Ser Thr Gly Ile Thr Gln Cys
Asp Ile Tyr Ser Thr Leu Leu Gly Leu Pro Ala Asp Ile Gln Ala Ala
Gln Ala Met Met Val Thr Ser Ser Ala Ile Ser Ser Leu Ala Cys Ile
                                                         95
Ile Ser Val Val Gly Met Arg Cys Thr Val Phe Cys Gln Glu Ser Arg
                                 105
            100
Ala Lys Asp Arg Val Ala Val Ala Gly Gly Val Phe Phe Ile Leu Gly
        115
Ser Leu Leu Gly Phe Ile Pro Xaa Ala Trp Asn Leu
                        135
<210> 782
<211> 86
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (33)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
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<222> (43)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 782
Arg Arg Phe Tyr Ser Pro Leu Val Pro Asp Ser Met Lys Phe Glu Ile
                                      10
                                                          15
```

Gly Glu Ala Leu Tyr Leu Gly Ile Ile Ser Ser Leu Phe Ser Leu Ile 20 25 30

Xaa Gly Ile Ile Leu Cys Phe Ser Cys Ser Xaa Gln Arg Asn Arg Ser 35 40 45

Asn Tyr Tyr Asp Ala Tyr Gln Ala Qn Pro Leu Ala Thr Arg Ser Ser 50 55 60

Pro Arg Pro Gly Gln Pro Pro Lys Val Lys Ser Glu Phe Asn Ser Tyr 65 70 75 80

Ser Leu Thr Gly Tyr Val 85

<210> 783

<211> 42

<212> PRT

<213> Homo sapiens

<400> 783

Met Phe Leu Phe Ile Thr Phe Thr Ile Leu Ala Ile Phe Ile Ile Glu  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Pro Arg Asn Leu Arg Val Asp Leu Asn Leu Ile Lys PheGln Thr Ser 20 25 30

Trp Pro Lys Thr Leu Val Glu Glu Gln Asn 35 40

<210> 784

<211> 76

<212> PRT

<213> Homo sapiens

<400> 784

Ile Asn Phe Thr Tyr Lys Arg Leu Ser Leu Asp Phe Ile Tyr Ile Tyr 1 5 10 15

Met Cys Val Cys Val Cys Val Cys Val Cys Val Cys Val Tyr 20 25 30

Leu Lys Arg Thr Cys Ala Ser Ile Lys Gly &n Lys Met Arg Glu Tyr 35 40 45

Ile Ile Asp Phe Val Lys Ser Lys Tyr Leu Asn Tyr Gly Phe Ser Ile 50 55 60

Phe Lys Asn Ser Cys Ser Phe Cys Thr Tyr Phe Phe 65 70 75

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<210> 785
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<211> 111

<212> PRT

<213> Homo sapiens

<400> 785

Met Gln Phe Ser Leu Cys Leu Thr Ala Val Phe Leu Leu Gln Leu Ala 1 5 10 15

Ala Gly Ile Leu Gly Phe Val Phe Ser Asp Lys Ala Arg Gly Lys Val  $20 \ 25 \ 30$ 

Ser Glu Ile Ile Asn Asn Ala Ile Val His Tyr Arg Asp Asp Leu Asp 35 40 45

Leu Gln Asn Leu Ile Asp Phe Gly Gh Lys Lys Val Trp Val Ser Gln 50 55 60

Trp Ser Gly Gly Leu Trp Val Lys Val Asn Val Ile Pro Arg Asp Ala 65 70 75 80

Ser Pro Ser Met Pro Val Gly Leu Phe Ile Th Cys Gln Val Met Ala 85 90 95

Ser Gly Lys Gly Phe Gly Lys Lys Ser Thr Arg Ser Arg Val Leu 100 105 110

<210> 786

<211> 78

<212> PRT

<213> Homo sapiens

<400> 786

Met Ser Pro His Gln Pro Met Gln Val Ser Ser Ser Lys Thr Ile Leu 1 5 10 15

Trp Leu Val Leu Ser Cys Leu Cys Pro Ser Ser Pro His Pro Val Ile 20 25 30

Ser Gly Leu Pro Gln Trp Tyr Ile Gly Val Leu Ala Gly Ile Val Pro 35 40 45

Val Ala Pro Ile Arg Pro Gly Asp Ser Gly Leu Asp Leu Gln Arg Glu 50 55 60

Gly Pro Gln Pro Ile Leu Ser Gln Gly Leu Asn Arg Arg Thr
65 70 75

<210> 787

<211> 53

<212> PRT

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<400> 787
Met Val Thr Phe Ile Asn Ala Thr Leu Trp Ile Ala Val Phe Ser Tyr
Ile Met Val Trp Leu Val Thr Ile Ile Gly Tyr Thr Leu Gly Ile Pro
Asp Val Ile Met Gly Ile Thr Phe Leu Ala Ala Gly Gln Val Phe Gln
                             40
         35
Thr Ala Trp Pro Ala
    50
<210> 788
<211> 169
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (39)
<223> Xaa equals any of the naturally occurring bamino acids
<220>
<221> SITE
<222> (44)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (71)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 788
Met Val Thr Phe Ile Xaa Ala Thr Leu Trp Ile Ala Val Phe Ser Tyr
Ile Met Val Trp Leu Val Thr Ile Ile Gly Tyr Thr Leu Gly Ile Pro
                                  2.5
Asp Val Ile Met Gly Ile Xaa Phe Leu Ala Ala Xaa Thr Ser Val Pro
                              40
Asp Cys Met Ala Ser Leu Ile Val Ala Arg Gln Gly Leu Gly Asp Met
Ala Val Ser Asn Thr Ile Xaa Ser Asn Val Phe Asp Ile Leu Val Gly
                                          75
```

Leu Gly Val Pro Trp Gly Leu Gln Thr Met Val Val Asn Tyr Gly Ser

95

Thr Val Lys Ile Asn Ser Arg Gly Leu Val Tyr Ser Val Val Leu Leu 100 105 110

Leu Gly Ser Val Ala Leu Thr Val Leu Gly Ile His Leu Asn Lys Trp
115 120 125

Arg Leu Asp Arg Lys Leu Gly Val Tyr Val Leu Val Leu Tyr Ala Ile 130 135 140

Phe Leu Cys Phe Ser Ile Met Ile Glu Phe Asn Val Phe Thr Phe Val 145 150 155 160

Asn Leu Pro Met Cys Arg Glu Asp Asp 165

<210> 789

<211> 105

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (69)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 789

Met Ser Gly Leu Ala Ala Ala Ala His Val Phe Arg Val Cys Leu Phe 1 5 10 15

Pro Leu Ser Trp Gly Ser Ser Lys Thr Thr Phe Ile His Gly Leu Ser 20 25 30

Ser Tyr Ile Ala Thr Pro Val Leu Asn Ser Ile Phe Ser Ser Trp Lys 35 40 45

Ser Arg Arg Lys Asp Thr Trp Thr Cys Leu Leu His Arg Leu Ser Ala 50 55 60

Phe Pro Ile Ser Xaa Arg Arg Arg Asn Phe Ala Leu Phe Ser His Ser 65 70 75 80

Cys Val Cys Ile Arg Ser Ser Ser Asp Asp Val Gly Pro Thr Met Tyr 85 90 95

Ser Phe Ser Val Pro Cys Arg Val Lys 100 105

<210> 790

<211> 886

<212> PRT

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<221> SITE
<222> (26)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (216)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (234)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (275)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (871)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 790
Met Ala Ala Arg Gly Arg Gly Leu Leu Leu Thr Leu Ser Val Leu
Leu Ala Ala Gly Pro Ser Ala Ala Ala Xaa Lys Leu Asn Ile Pro Lys
             20
                                 2.5
Val Leu Leu Pro Phe Thr Arg Ala Thr Arg Val Asn Phe Thr Leu Glu
Ala Ser Glu Gly Cys Tyr Arg Trp Leu Ser Thr Arg Pro Glu Val Ala
Ser Ile Glu Pro Leu Gly Leu Asp Glu Gln Gln Cys Ser Gln Lys Ala
Val Val Gln Ala Arg Leu Thr Gln Pro Ala Arg Leu Thr Ser Ile Ile
Phe Ala Glu Asp Ile Thr Thr Gly Gln Val Leu Arg Cys Asp Ala Ile
                                105
Val Asp Leu Ile His Asp Ile Gln Ile Val Ser Thr Thr Arg Glu Leu
                            120
        115
Tyr Leu Glu Asp Ser Pro Leu Glu Leu Lys Ile Gln Ala Leu Asp Ser
                        135
Glu Gly Asn Thr Phe Ser Thr Leu Ala Gly Leu Val Phe Glu Trp Thr
                                         155
                    150
```

<220>

- Ile Val Lys Asp Ser Glu Ala Asp Arg Phe Ser Asp Ser His Asn Ala 165 170 175
- Leu Arg Ile Leu Thr Phe Leu Glu Ser Thr Tyr Ile Pro Pro Ser Tyr 180 185 190
- Ile Ser Glu Met Glu Lys Ala Ala Lys Gln Gly Asp Thr Ile Leu Val 195 200 205
- Ser Gly Met Lys Thr Gly Ser Xaa Lys Leu Lys Ala Arg Ile Gln Glu 210 215 220
- Ala Val Tyr Lys Asn Val Arg Pro Ala Xaa Val Arg Leu Leu Ile Leu 225 230 235 240
- Glu Asn Ile Leu Leu Asn Pro Ala Tyr Asp Val Tyr Leu Met Val Gly
  245 250 255
- Thr Ser Ile His Tyr Lys Val Gln Lys Ile Arg Gln Gly Lys Ile Thr 260 265 270
- Glu Leu Xaa Met Pro Ser Asp Gln Tyr Glu Leu Gln Leu Gln Asn Ser 275 280 285
- Ile Pro Gly Pro Glu Gly Asp Pro Thr Ag Pro Val Ala Val Leu Ala 290 295 300
- Gln Asp Thr Ser Met Val Thr Ala Leu Gln Leu Gly Gln Ser Ser Leu 305 310 315
- Val Leu Gly His Arg Ser Ile Arg Met Gln Gly A $\mbox{$\Delta$}$  Ser Arg Leu Pro 325 330 335
- Asn Ser Thr Ile Tyr Val Val Glu Pro Gly Tyr Leu Gly Phe Thr Val 340 345 350
- His Pro Gly Asp Arg Trp Val Leu Glu Thr Gly Arg Le Tyr Glu Ile 355 360 365
- Thr Ile Glu Val Phe Asp Lys Phe Ser Asn Lys Val Tyr Val Ser Asp 370 375 380
- Asn Ile Arg Ile Glu Thr Val Leu Pro Ala Glu Phe Phe Glu Val Leu 385 390 395 400
- Ser Ser Ser Gln Asn Gly Ser Tyr His Arg Ile Arg Ala Leu Lys Arg 405 410 415
- Gly Gln Thr Ala Ile Asp Ala Ala Leu Thr Ser Val Val Asp Gln Asp 420 425 430
- Gly Gly Val His Ile Leu Gln Val Pro Val Trp Asn Gln Glu Val 435  $440 \hspace{1.5cm} 445$
- Glu Ile His Ile Pro Ile Thr Leu Tyr Pro Ser Ile Leu Thr Phe Pro  $450 \hspace{1cm} 455 \hspace{1cm} 460$

Trp Gln Pro Lys Thr Gly Ala Tyr Gln Tyr Thr Ile Arg Ala His Gly Gly Ser Gly Asn Phe Ser Trp Ser Ser Ser Ser His Leu Val Ala Thr 490 Val Thr Val Lys Gly Val Met Thr Thr Gly Ser Asp Ile Gly Phe Ser 505 Val Ile Gln Ala His Asp Val Gln Asn Pro Leu His Phe Gly Glu Met 520 Lys Val Tyr Val Ile Glu Pro His Ser Met Glu Phe Ala Pro Cys Gln 540 535 Val Glu Ala Arg Val Gly Gln Ala Leu Glu Leu Pro Leu Arg Ile Ser 555 Gly Leu Met Pro Gly Gly Ala Ser Glu Val Val Thr Leu Ser Asp Cys Ser His Phe Asp Leu Ala Val Glu Val Glu Asn Gln Gly Val Phe Gln 585 Pro Leu Pro Gly Arg Leu Pro Pro Gly Ser Glu His Cys Ser Gly Val Arg Val Lys Ala Glu Ala Gln Gly Ser Thr Thr Leu Leu Val Ser Tyr 615 Arg His Gly His Val His Leu Ser Ala Lys Ile Thr Ile Ala Ala Tyr 635 625 630 Leu Pro Leu Lys Ala Val Asp Pro Ser Ser Val Ala Leu Val Thr Leu Gly Ser Ser Lys Glu Met Leu Phe Glu Gly Gly Pro Arg Pro Trp Ile Leu Glu Pro Ser Lys Phe Phe Gln Asn Val Thr Ala Glu Asp Thr Asp 680 Ser Ile Gly Leu Ala Leu Phe Ala Pro His Ser Ser Arg Asn Tyr Gln 695 Gln His Trp Ile Leu Val Thr Cys Gln Ala Leu Gly Glu Gln Val Ile 715 710 Ala Leu Ser Val Gly Asn Lys Pro Ser Leu Thr Asn Pro Phe Pro Ala Val Glu Pro Ala Val Val Lys Phe Val Cys Ala Pro Pro Ser Arg Leu 745 Thr Leu Val Pro Val Tyr Thr Ser Pro Gln Leu Asp Met Ser Cys Pro 760

- Leu Leu Gln Gln Asn Lys Gln Val Val Pro Val Ser Ser His Arg Asn 770 780
- Pro Leu Leu Asp Leu Ala Ala Tyr Asp Gln Gh Gly Arg Arg Phe Asp 785 790 795 800
- Asn Phe Ser Ser Leu Ser Ile Gln Trp Glu Ser Thr Arg Pro Val Leu 805 810 815
- Ala Ser Ile Glu Pro Glu Leu Pro Met Gh Leu Val Ser Gln Asp Asp 820 825 830
- Glu Ser Gly Gln Lys Lys Leu His Gly Leu Gln Ala Ile Leu Val His 835 840 845
- Glu Ala Ser Gly Thr Thr Ala Ser Leu Pro Leu Pro Le Ala Thr Arg 850 860
- Ser Pro Thr Ser Ala Leu Xaa Glu Gln Ser Ser Arg Met Thr Leu Trp 865 870 875 880
- Cys Leu Cys Arg Pro Pro 885
- <210> 791
- <211> 498
- <212> PRT
- <213> Homo sapiens
- <220>
- <221> SITE
- <222> (11)
- <223> Xaa equals any of the naturally occurring Lamino acids
- <220>
- <221> SITE
- <222> (20)
- <223> Xaa equals any of the naturally occurring Lamino acids
- <220>
- <221> SITE
- <222> (398)
- <223> Xaa equals any of the naturally occurring Lamino acids
- <400> 791
- Glu Ala Leu Gly Gly Arg Cys Leu Trp Glu Xaa Pro Val Thr Phe Thr 1 5 10 15
- Val His Phe Xaa Asp Asn Ser Gly Asp Val Phe His Ala His Ser Ser 20 25 30
- Val Leu Asn Phe Ala Thr Asn Arg Asp Phe Val Gln Ile Gly Lys 35 40 45
- Gly Pro Thr Asn Asn Thr Cys Val Val Arg Thr Va Ser Val Gly Leu

	50					55					60				
Thr 65	Leu	Leu	Arg	Val	Trp 70	Asp	Ala	Glu	His	Pro 75	Gly	Leu	Ser	Asp	Phe 80
Met	Pro	Leu	Pro	Val 85	Leu	Gln	Ala	Ile	Ser 90	Pro	Glu	Leu	Se G	Sly A 95	la
Met	Val	Val	Gly 100	Asp	Val	Leu	Cys	Leu 105	Ala	Thr	Val	Leu	Thr 110	Ser	Leu
Glu	Gly	Leu 115	Ser	Gly	Thr	Trp	Ser 120	Ser	Ser	Ala	Asn	Ser 125	Ile	Lae H	lis
Ile	Asp 130	Pro	Lys	Thr	Gly	Val 135	Ala	Val	Ala	Arg	Ala 140	Val	Gly	Ser	Val
Thr 145	Val	Tyr	Tyr	Glu	Val 150	Ala	Gly	His	Leu	Arg 155	Thr	Tyr	Lys	Glu	Val 160
Val	Val	Ser	Val	Pro 165	Gln	Arg	Ile	Met	Ala 170	Arg	His	Leu	His	Pro 175	Ile
Gln	Thr	Ser	Phe 180	Gln	Glu	Ala	Thr	Ala 185	Ser	Lys	Val	Ile	Val 190	Ala	Val
Gly	Asp	Arg 195	Ser	Ser	Asn	Leu	Arg 200	Gly	Glu	Cys	Thr	Pro 205	Thr	Gln	Arg
Glu	Val 210	Ile	Gln	Ala	Leu	His 215	Pro	Glu	Thr	Leu	Ile 220	Ser	Суѕ	Gln	Ser
Gln 225	Phe	Lys	Pro	Ala	Val 230	Phe	Asp	Phe	Pro	Ser 235	Gln	Asp	Val	Phe	Thr 240
Val	Glu	Pro	Gln	Phe 245	Asp	Thr	Ala		Gly 250	Gln	Tyr	Phe		Ser 255	Ile
Thr	Met	His	Arg 260	Leu	Thr	Asp	Lys	Gln 265	Arg	Lys	His	Leu	Ser 270	Met	Lys
Lys	Thr	Ala 275	Leu	Val	Val	Ser	Ala 280	Ser	Leu	Ser		Ser 285	His	Phe	Ser
Thr	Glu 290	Gln	Val	Gly	Ala	Glu 295	Val	Pro	Phe	Ser	Pro 300	Gly	Leu	Phe	Ala
Asp 305	Gln	Ala	Glu	Ile	Leu 310	Leu	Ser	Asn	His	Tyr 315	Thr	Ser	Ser	Glu	Il∈ 320
Arg	Val	Phe	Gly	Ala 325	Pro	Glu	Val	Leu	Glu 330	Asn	Leu	Glu	Val	Lys 335	Ser
Gly	Ser	Pro	Ala 340		Leu	Ala	Phe	Ala 345		Glu	Lys		Phe	Gly	Trp

Pro Ser Phe Ile Thr Tyr Thr Val Gly Val Leu Asp Pro Ala Ala Gly

355 360 365

Ser Gln Gly Pro Leu Ser Thr Thr Leu Thr Phe Ser Ser Pro Val Thr 370 375 380

Asn Gln Ala Ile Ala Ile Pro Val Thr Val Ala Phe Val Xaa Asp Arg 385 390 395 400

Arg Gly Pro Gly Pro Tyr Gly Ala Ser Leu Phe Gln His Phe Leu Asp
405 410 415

Ser Tyr Gln Val Met Phe Phe Thr Leu Phe Ala Leu Leu Ala Gly Thr 420 425 430

Ala Val Met Ile Ile Ala Tyr His Thr Val Cys Thr Pro Arg Asp Leu 435 440 445

Ala Val Pro Ala Ala Leu Thr Pro Arg Ala Ser Pro Gly His Ser Pro 450 460

His Tyr Phe Ala Ala Ser Ser Pro Thr Ser Pro Asn Ala Leu Pro Pro 465 470 475 480

Ala Arg Lys Ala Ser Pro Pro Ser Gly Leu Trp Ser Pro Ala Tyr Ala 485 490 495

Ser His

<210> 792

<211> 112

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (112)

<223> Xaa equals any of the naturally occurring Hamino acids

<400> 792

Met Lys Thr Leu Leu Leu Leu Val Gly Leu Leu Leu Thr Trp Glu Asn 1 5 10 15

Gly Arg Val Leu Gly Asp Gln Met Val Ser Asp Thr Glu Leu Gln Glu 20 25 30

Met Ser Thr Glu Gly Ser Lys Tyr Ile Asn Arg Glu Ile Lys Asn Ala  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Leu Lys Gly Val Lys Gln Ile Lys Thr Leu Ile Glu Gln Thr Asn Glu

50 55 60

Glu Arg Lys Ser Leu Leu Thr Asn Leu Glu Glu Ala Lys Lys Lys 65 70 75 80

Glu Asp Ala Leu Asn Asp Thr Lys Asp Ser Glu Met Lys Leu Lys Ala 85 90 95

Ser Pro Gly Val Phe Asn Xaa Thr Leu Asp Gly Pro Leu Gly Gly Xaa 100 105 110

<210> 793

<211> 112

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring Hamino acids

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring £amino acids

<220>

<221> SITE

<222> (112)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 793

Met Lys Thr Leu Leu Leu Leu Val Gly Leu Leu Leu Thr Trp Glu Asn  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Gly Arg Val Leu Gly Asp Gln Met Val Ser Asp Th Glu Leu Gln Glu 20 25 30

Met Ser Thr Glu Gly Ser Lys Tyr Ile Asn Arg Glu Ile Lys Asn Ala 35 40 45

Leu Lys Gly Val Lys Gln Ile Lys Thr Leu Ile Glu Gln Thr Axs Glu 50 60

Glu Arg Lys Ser Leu Leu Xaa Asn Leu Glu Glu Ala Lys Lys Lys 65 70 75 80

Glu Asp Ala Leu Asn Asp Thr Lys Asp Ser Glu Met Lys Leu Lys Ala 85 90 95

Ser Pro Gly Val Phe Asn Xaa Thr Leu Asp Gly Pro Leu Gly Gly Xaa 100 105 110

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<210> 794
<211> 139
<212> PRT
<213> Homo sapiens
<400> 794
Met Lys Thr Leu Leu Leu Val Gly Leu Leu Thr Trp Glu Asn
Gly Arg Val Leu Gly Asp Gln Met Val Ser Asp Thr Glu Leu Gln Glu
                                 2.5
Met Ser Thr Glu Gly Ser Lys Tyr Ile Asn Arg Glu Ile Lys Asn Ala
Leu Lys Gly Val Lys Gln Ile Lys Thr Leu Ile Glu Gln Thr Asn Glu
Glu Arg Lys Ser Leu Leu Thr Asn Leu Glu Glu Ala Lys Lys Lys
Glu Asp Ala Leu Asn Asp Thr Lys Asp Ser Glu Met Lys Leu Lys Ala
Ser Gln Gly Val Cys Asn Asp Thr Met Met Ala Leu Trp Glu Glu Cys
                               105
Lys Pro Cys Leu Lys Gln Thr Trp Gly Lys Gly Leu Arg Pro Ser Leu
Gln Lys Gln His Arg Ala Gly Trp Pro Pro Gly
    130
                       135
<210> 795
<211> 7
<212> PRT
<213> Homo sapiens
<400> 795
Leu Leu Val Val Leu Leu Ser
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<210> 796 <211> 14 <212> PRT

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<400> 796
Leu Leu Val Gly Leu Gln Gln Leu Val Val Gln Ala Trp
<210> 797
<211> 288
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (10)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (268)
<223> Xaa equals any of the naturally occurring Bamino acids
<220>
<221> SITE
<222> (271)
<223> Xaa equals any of the naturally occurrig L-amino acids
<220>
<221> SITE
<222> (273)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (274)
<223> Xaa equals any of the naturally occurring £amino acids
<220>
<221> SITE
<222> (276)
<223> Xaa equals any of the naturally occurring bamino acids
<220>
<221> SITE
<222> (286)
<223> Xaa equals any of the naturally occurring £amino acids
<400> 797
Phe Ser Ser Ser Ala Cys Pro Ser Val Xaa Ser Leu Phe Val Xaa Leu
Gly Lys Asn Pro His Asp Ala Gln Gly His Pro Arg Ala Ser Glu Asp
```

Gln Pro Ser Ser Gly Lys Pro Val Thr Ser Tyr Pro Gly Glu Cys Gly 35 40 45

Phe Val Phe Thr Lys Glu Ala Ser Leu Glu Ile Arg Asp Met Leu Leu 50 55 60

Ala Asn Lys Val Pro Ala Ala Ala Arg Ala Gly Ala Ile Ala Pro Cys
65 70 75 80

Glu Val Thr Val Pro Ala Gln Asn Thr Gly Leu Gly Pro Glu Lys Thr 85 90 95

Ser Phe Phe Gln Ala Leu Gly Ile Thr Thr Lys Ile Ser Arg Gly Thr  $100 \\ 105 \\ 110$ 

Ile Glu Ile Leu Ser Asp Val Gln Leu Ile Lys Thr Gly Asp Lys Val 115 120 125

Gly Ala Ser Glu Ala Thr Leu Leu Asn Met Leu Asn Ile Ser Pro Phe 130 140

Ser Phe Gly Leu Ile Ile Gln Gln Val Phe Asp Asn Gly Ser Ile Tyr 145 150 155 160

Asn Pro Glu Val Leu Asp Ile Thr Glu Glu Thr Leu His Ser Arg Phe 165 170 175

Leu Glu Gly Val Arg Asn Val Ala Ser Val Cys Leu Gln Ile Gly Tyr 180 185 190

Pro Thr Val Ala Ser Val Pro His Ser Ile Ile Asn Gly Tyr Lys Arg 195 200 205

Val Leu Ala Leu Ser Val Glu Thr Asp Tyr Thr Phe Pro Leu Ala Glu 210 215 220

Lys Val Lys Ala Phe Leu Ala Asp Pro Ser Ala Phe Val Ala Ala Ala 225 230 235 240

Pro Val Ala Ala Ala Thr Thr Ala Ala Pro Ala Ala Ala Ala Pro 245 250 255

Ala Lys Val Glu Ala Lys Glu Glu Ser Glu Glu Xaa Asp Glu Xaa Ile 260 265 270

Xaa Xaa Ser Xaa Ile Ser Lys Ser Asn Asn Ser Ser Gln Xaa Ile Val 275 280 285

<sup>&</sup>lt;210> 798

<sup>&</sup>lt;211> 97

<sup>&</sup>lt;212> PRT

<213> Homo sapiens

<400> 798

Met Tyr Arg Ala Ile Asp Ser Phe Pro Arg Trp Arg Ser Tyr Phe Tyr 1 5 10 15

Phe Ile Thr Leu Ile Phe Phe Leu Ala Trp Leu Val Lys Asn Val Phe 20 25 30

Ile Ala Val Ile Ile Glu Thr Phe Ala Glu Ile Arg Val Gln Phe Gln 35 40 45

Gln Met Trp Gly Ser Arg Ser Ser Thr Thr Ser Thr Ala Thr Thr Gln
50 55 60

Met Phe His Glu Asp Ala Ala Gly Gly Trp Gln Leu Val Ala Val Gly 65 70 75 80

Cys Gln Gln Ala Pro Gly Thr Arg Pro Ser Leu Pro Pro Gly Ala Val 85 90 95

Gln

<210> 799

<211> 80

<212> PRT

<213> Homo sapiens

<400> 799

Gly Asn Arg Ser Phe Thr Arg Asn Leu Arg Cys Asn Trp Thr Gln Gly  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Tyr Arg Trp Ser Thr Ala Leu Leu Ile Ser Leu Thr Leu Gly Gly Phe 20 25 30

Gly Ala Asp Arg Phe Tyr Leu Gly HisTrp Gln Glu Gly Ile Gly Lys 35 40 45

Leu Phe Ser Phe Gly Gly Leu Gly Val Trp Thr Ile Ile Asp Val Leu 50 60

Leu Ile Ser Met His Tyr Leu Gly Pro Ala Asp Gly Ser LeuTyr Ile
65 70 75 80

<210> 800

<211> 81

<212> PRT

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